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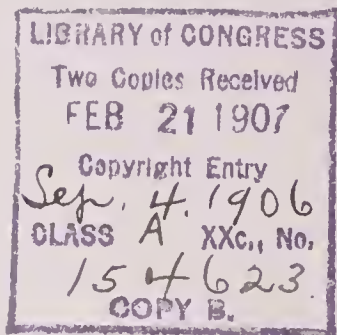
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BUSINESS AND COMMERCE

ACCEPT.—To agree or promise to pay

ACCEPTANCE.—The act of receiving a bill of exchange in such manner that the acceptor is bound to pay it.

ACCESSORY.—One who takes part in a felonious act, but is not a principal in the crime. The law in dealing with the offense distinguishes between an accessory before the fact, and an accessory after the fact.

ACCOMMODATION.—A term applied to designate a note or endorsement intended for discount, but which has not been given in payment for goods.

ACCRUE.—To accumulate, as interest, profits, or losses.

ACCRUED INTEREST.—Interest earned to date.

ACCOUNT.—An entry in a book or on paper, of buying and selling or of payments, services, etc., set forth with names of parties concerned, dates, prices, and payments.

ACCOUNTANT AND BOOKKEEPER.—To become a good and competent bookkeeper and approved (or chartered) accountant, it is essential that one should have a general professional knowledge of accounting business, have a good elementary education, and some acquaintance with commercial law. In most offices employing accountants and bookkeepers, the applicant for a position is expected to know, and is sometimes tested in his knowledge of the following subjects: First, Dictation; second, English Grammar; third, Arithmetic; fourth, Euclid; fifth, Bookkeeping; sixth, Type-writing; seventh, Latin; eighth, French, German, and Spanish. For the higher posts in the profession a knowledge is necessary, in addition to the foregoing, of the Higher Mathematics, Commercial Law, and the duties of an Actuary. In this country, where a young man, as a rule, enters business life at an early age, he is often poorly equipped for even the lower positions in a counting house and office; such seeking these positions and advancement in them, should endeavor strenuously to fit themselves for what

may be required of them, especially in the elements and groundwork of education. For mercantile positions, applicants have often been found lacking in this, to their great disadvantage, and ignorant of even the familiar signs and abbreviations made use of in bookkeeping and other commercial occupations and pursuits. For the benefit of such, are appended the more common abbreviations in use by accountants and bookkeepers, to save time and space in their daily work:—

A

@.— At (so much per lb.).
 4/c. or Acc't.— Account.
 A.D.— (*Anno Domini*). In the year of our Lord.
 Agt.— Agent.
 Ain't.— Amount.
 Ans.— Answer.
 Apr. or Ap'l.— April.
 Ark.— Arkansas.
 Ass't'd.— Assorted.
 Asst.— Assistant.
 Aug.— August.

B

Bk.— Bank.
 Bal.— Balance.
 B. Rec.— Bills Receivable.
 B. Pay.— Bills Payable.
 Bl.— Bill of lading.
 Bbl.— Barrel.
 Bds.— Boards (binding).
 Bo't.— Bought.
 Bro't.— Brought.
 Bdls.— Bundles.
 Bgs.— Bags.
 Bu.— Bushel.
 Bls.— Bales.
 B. O.— Buyer's option.
 Bxs.— Boxes.

C

%.— Care of.
 ¢.— Cents.
 Cs.— Cases.
 Cap.— Capital.
 Cks.— Checks, casks.
 Chts.— Chests.
 Chg'd.— Charged.
 Clo.— Cloth (binding).
 Co.— Company.
 Cin.— Cincinnati.
 C. O. D.— Collect on delivery.
 Com.— Commission.
 Const.— Consignment.
 Cr.— Creditor.
 Cts.— Cents.
 Cwt.— Hundredweight.
 Cyc.— Cyclopædia.

D

D.— Pence.
 D. or d.— Dollar.
 D or *Dele.*—Delete, erase, cancel.
 D. G.— (*Dei Gratia*) By God's grace.
 D's.— Days.

Dan.— Daniel.
 Dec.— December.
 Dep.— Deposit, deputy.
 Dft.— Draft.
 Dis.— Discount.
 Div.— Dividend.
 Doz.— Dozen.
 Dols.— Dollars.
 Do. or Ditto.— The same, the said.
 D.— Debtor, doctor.
 Dwt.— Pennyweight.

E

ea.— Each.
 Ed.— Editor.
 e. g.— (*exempli gratia*) For example.
 Etc.— (*Et cætera*) And the rest and so on.
 E. E.— Errors excepted.
 E. & O. E.— Errors and omissions excepted.
 Edit.— Edition.
 Exch.— Exchange.
 Emb'd.— Embroidered.
 Eng.— English.
 Esq.— Esquire.
 Ex.— Example.
 Exch.— Exchange.
 Exec.— Executor.
 Exp.— Expense or expenses.

F

Fav.— Favor.
 Feb.— February.
 Fig'd.— Figured.
 For'd.— Forward.
 Fcp.— Foolscap (size of paper).
 Fla.— Florida.
 Fol.— Folio.
 F. O. B.— Free on board.
 Fir.— Firkin.
 Fr.— Franc.
 Fr't.— Freight.
 Ft.— Feet.
 Fi. fa.— (*Fieri facias*) Cause it to be done.
 Fur.— Furlong.

G

Ga.— Georgia.
 Gal.— Gallon.
 Gr.— Grain or gross.
 G. P. O.— General post office.
 G. B.— Great Britain.

H

Hf.— Half.
 Hf.-bd.— Half-bound.
 Hhd.— Hogshead.
 Hon.— Honorable.
 H. P.— Horse-power.
 Hdkfs.— Handkerchiefs.

I

Ia.— Iowa.
 I. O. U.— I owe you.
 I. B.— Invoice book.
 Ib. or *Ibid.*— (*Ibidem*) In the same place.
 Id. or *Idem.*— The same.
 Inf.— (*Infra*) Below.
 inst.— Instant, present month.
 Int.— Interest.
 Intro.— Introduction.
 Inv.— Invoice, inventory.
 i. e.— (*Id est*) That is.
 Ill.— Illinois.
 Ind.— Indiana.
 I. T.— Indian Territory.
 Ij.— Two (medical).
 IV.— Four or fourth.

J

Jan.— January.
 J. or Jour.— Journal.
 Jno.— John.
 Jr.— Junior.

K

Kan.— Kansas.
 Ky.— Kentucky.
 Kilo.— Kilogramme.

L

L.— Book, lake, pound.
 Lbs.— Pounds.
 Led.— Ledger.
 L. F.— Ledger folio.
 Lib.— (*Libra*) Pound.
 L. S.— (*Loco Sigilli*) The place of the seal.
 Lt.— Lieutenant.
 La.— Louisiana.
 L. S. D.— Pounds, shillings, and pence.

M

M.—One thousand.
Mfa.—Months after date.
Mar.—March.
Mass.—Massachusetts.
Md.—Maryland.
Me.—Maine.
Mem.—Memorandum.
Mich.—Michigan.
Minn.—Minnesota.
Miss.—Mississippi.
Md'lle.—Mademoiselle.
Mme.—Madame.
MM.—Messieurs, gentlemen.
Mdse.—Merchandise.
Mrs.—Mistress.
Mo.—Month.
MS.—Manuscript.
MSS.—Manuscripts.
Mo.—Missouri.

N

N.—North.
N. B.—(*Nota bene*) Observe,
mark well, note book.
N. O.—New Orleans.
No.—Number.
Nov.—November.
N. P.—Notary Public.
N. C.—North Carolina.
N. D.—No date.
N. E.—New England.
Neb.—Nebraska.
Nem. Con.—(*Nemine Contradi-*
cente) No one contradicting.
Nev.—Nevada.
N. J.—New Jersey.
N. H.—New Hampshire.
N. Y.—New York.

O

Oz.—Ounce.
O. I. B.—Outward invoice book.
Oct.—October.
O.—Ohio.
O. P.—Out of print.
Or.—Oregon.
Obdt.—Obedient.

P

pp.—Pages.
P. B.—Pass-book.
Par.—Paragraph.
Pd.—Paid.
Pay't.—Payment.
Per.—By.
Pr.—Pair.
Pcs.—Pieces.
P. S.—(*Post Scriptum*) Post
Script.
Pro tem.—(*Pro tempore*) For the
time.

Prox.—(*Proximo*) In the next
month.
P. T. O.—Please turn over.
P. O. O.—Post office order.
Pa.—Pennsylvania.
Per An.—(*Per Annum*) By the
year.
P. C.—(*Per centum*) By the
hundred, or Post card.
Penn.—Pennsylvania.
Pun.—Punchion.
Pt.—Pints.
Prem.—Premium.
P. M.—(*Post Meridiem*) After-
noon.
Phila.—Philadelphia.

Q

Qr.—Quarter.
Qts.—Quarts.
q. v.—(*Quod vide*) Which see.
Qy.—Query.

R

R.—(*Recipe*) In prescriptions —
Take.
Ry.—Railroad or Railway.
R. I.—Rhode Island.
R. S. V. P.—(*Fr. Repandez s'il*
vous plait) Please reply.
R. R.—Railroad.
Rec'd.—Received.
Rec't.—Receipt.
Rt. Hon.—Right Honorable.

S

S. O.—Seller's option.
Sat.—Saturday.
Schr.—Schooner.
S. Caps.—Small capitals (Print).
Shp't.—Shipment.
Str.—Steamer.
Stg.—Sterling.
Sh'p.—Ship.
Sing.—Singular.
Sunds.—Sundries.
S. C.—South Carolina.
S. D.—South Dakota.
Sup.—(*Supra*) Above.
Sp. gr.—Specific gravity.

T

T. O.—Turn over, Telegraph
office.
Tenn.—Tennessee.
Tex.—Texas.
Trcs.—Tierces.
Treas.—Treasurer.
Treas'y.—Treasury.

U

Ult.—(*Ultimo*) Last month.
U. S.—United States.
U. T.—Utah Territory.
Ut. Sup.—(*Ut Supra*) As above.

V

V.—Versus.
Va.—Virginia.
Viz.—(*Videlicet*) Namely, to wit.
V. P.—Vice-President.
Vt.—Vermont.
Vol.—Volume

W

Wt.—Weight.
Wis.—Wisconsin.
W. Va.—West Virginia.
Wy. T.—Wyoming Territory.
Whf.—Wharf, wharfage.

X

Xmas.—Christmas.

Y

Yds.—Yards.
Yr.—Year.
Yr.—Younger.
Yrs.—Years.

&. &c.—(*Et*) and (*Et cætera*)
and the rest.

4to.—Quarto.
8vo.—Octavo.
12mo.—Twelvemo.

£.—Pound.

\$.—Dollar.

Pr.—Per, by.

".—Ditto (the same).

%.—Per cent.

†.—Number.

+.—Sign of Addition.

—.—Sign of Subtraction.

×.—Sign of Multiplication.

÷.—Sign of Division.

=.—Sign of Equality.

$\frac{1}{4}$ th.—One-fourth.

$\frac{1}{2}$.—One-half.

$1\frac{3}{4}$.—One and three-fourths.

THE ACCOUNTANT

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SCIENTIFIC accountancy is the "hub of the universe" of commerce, trade, and finance; the pivot, as it were, of the wheel of fortune; the point, if truly centered, about which all the business world revolves with the velocity and ease and restful silence of a spinning top when, as the boys say, "it's gone to sleep."

Accountancy — the higher accountancy, if we must thus distinguish it — is a science, an erudition; and not, as some seem to suppose, a mere collection of approximative and hardly certain rules indicated by observation and intuition, and to be applied with tact and wariness. It thinks out, and thus finds out, with logical and mathematical accuracy, the condition of affairs of any business enterprise.

The evolution of professional accountancy has been very slow, especially in its beginning; and from time to time such undesirable qualifying terms as "expert" have had to be employed to emphasize, in the popular mind, the distinction between a bookkeeper and an accountant.

A law of the state of New York, dated 1896, brought Certified Public Accountancy into existence. By this law, the Regents of the University of the State of New York are authorized to examine those who may apply for certificates of qualification to practice as public expert accountants, and to grant to those who pass the examination satisfactorily, the exclusive right to be styled and known as Certified Public Accountants, and to use the abbreviation C. P. A. The full C. P. A. certificate is accorded only to those at least twenty-five years of age, of good moral character, who have had three years' satisfactory experience in the practice of accounting, one of which will have been in the office of an expert public accountant. The examination includes the theory of accounts; practical accounting; auditing, and commercial law. Other states have passed laws founded upon this of the state of New York; and it is everywhere evident that public sympathy is in favor of safeguarding and protecting our profession and of maintaining therein a high standard of excellence.

It will have been seen, from what has been already said, that accountancy as a profession is brought into very close touch and relationship with other important departments of business activity, and that the distinction between it and one and another of these is not always clear to

popular apprehension. The accountant's confidential relation is with the administrator or proprietor, and it is only as the representative, or as the helper or adviser, of his client, that he has to do with the functions of others. He is not, for instance, the bookkeeper of the concern; nor does the expression "expert bookkeeper" describe his attitude or relation either to that functionary or to any corps of bookkeepers, however large and important; much less to the establishment or enterprise in its entirety. He is, however, a bookkeeper in the sense that he thoroughly understands the ins and outs of that art; and as the representative, for the time, of the business, he critically examines the accounts as recorded in the books, in order that he may give to his employer a scientific showing of the financial condition of the enterprise.

Following the same line of thought, it may be said that the accountant is not the official auditor. Every great enterprise has its auditor; and, in the organization of railway and other administrations, there is often an important corps of what are known as traveling auditors. The accountant is called upon, whether these officials exist or not, to make an audit; or, as it is sometimes called, an independent audit. In the performance of this duty, he must audit the auditor's accounts; and if, as in one or two recent cases, he proves that the auditor has cooked the accounts to his own pecuniary advantage, and has been false to his trust, the independent accountant, in the exercise of his knowledge and skill, has merely performed his part in the discovery of the truth.

Commercial law is studied by the accountant, so that, in his advisory capacity, not as a legal practitioner, but as merely knowing what is or what is not allowable in certain cases, he may assist his employer in steering clear, not only of litigation itself, but of complications that may result in financial ruin. And let me say, in passing, that by no other profession is the existence of our young brotherhood more heartily welcomed, both in Great Britain and — as we become better and better known — in the United States, than by the legal fraternity.

And thus it will be seen that in this great new world of modern monetary affairs, the place of public accountancy is close beside that of ownership and administration; and that our allegiance, as well as our responsibility and accountability, is to the business public itself. And this not in that lower and unworthy sense in which a man is sometimes said to have been "faithful"; for, without a thought of credit or discredit to ourselves, we seek to find for our clientele the precise condition of affairs, and to show how this condition bears upon the future. And however indefinitely our work may be modified by the variety of business requirements, or however we may bend and seem to trench on the functions of this and that official, our aim, the object and end of our science, is still the same; that is, the discovery of truth.

The place for accountancy is enlarging and will continue to expand. So that we may say, in the light of the history of our profession, that its opportunities will be manifoldly greater and more numerous in the future than ever in the past.

BOOKKEEPING A GOOD STEPPING-STONE

THE practical study of bookkeeping, aside from its value as a means of earning a living, will always occupy a high place in the scale of studies designed to prepare young men for the duties of an active career, for nothing is so well calculated to impress upon the mind of the student the importance of accuracy, system, and responsibility. A full knowledge of this subject will be of the greatest value to him, especially if he chooses a business career.

But it is not enough that a bookkeeper be competent to continue a set of books already started; he must be able to meet new conditions, and, if necessary, open a new set of books to meet those conditions. The keynote to success in this business is accuracy. No matter how small a mistake may be, it must sooner or later be discovered and corrected before the bookkeeper can proceed with his work; the skilled bookkeeper soon learns that it is much easier to avoid than to correct errors. Another essential is neatness. Business men insist that their books be kept neatly as well as correctly. Speed is desirable, but must be attempted only after the student has become accurate and neat. These qualifications will enable any man to fill any position which may be offered to him in the bookkeeping line.

As a life-work, bookkeeping is not attractive; but, as a means to an end, it offers many advantages. Every young man who accepts a position as bookkeeper, should endeavor to use it as a stepping-stone rather than to make it a permanent calling. The reason why there are so many bookkeepers who command small salaries, and whose places can be filled at a few moments' notice, is that so large a number of bookkeepers seem to be satisfied with their lot in life; their interest in the business ends with a correct trial balance. They are as accurate, and at the same time as mechanical, as a cash register. This is the greatest danger connected with the position of bookkeeper.

The ceaseless repetition and the monotonous round which constitute a day's work, tend to limit the imagination and dull the ambition, and it is only when these faculties are stimulated and active that success is possible. If a bookkeeper performs his duties with promptness and accuracy, he will find time to learn every detail of the business. Through the medium of the accounts, he may become familiar with the duties of the

credit man, the financial standing of the customers, the prices, discounts and cost of goods, and, if he broadens his mind and enlarges his capacity for the service, he will acquire a grasp of the business which he will surely find opportunities to use to advantage.

The examples of successful men who have started as bookkeepers are sufficiently numerous to fill many volumes. One of the favorite precepts of one of these men, a banker, is this: "Do not get into a rut; that is the greatest pitfall for a clerk. The man who takes no interest in the banking business outside of his cage, will never be successful,"—and his own life is an example, not only of the truth of this, but of the possibilities that lie within the reach of every ambitious, intelligent young man who is willing to work.

ACCOUNT CURRENT.—A detailed statement of all debits and credits of an open account between two persons.

ACCOUNTING.—The science or profession of the orderly recording of business transactions.

ACCOUNT SALES.—A statement of merchandise sold on commission.

ACTUARY.—One who is skilled in the management of joint stock associations, or insurance companies.

ADDRESS, FORMS OF.—The titles or ceremonious terms to be used in addressing written communications to people of high or official position. Usage in this country has sanctioned the employment of the following modes of address: *His Excellency, The President of the United States*. Custom has also made proper the use of the prefix *His Excellency* when addressing governors of states, and ambassadors or ministers of the United States abroad. In conversation, or in formal oral address, the term *Mr. President* is used by all to the head of the nation, save by the President's personal or intimate friends. The Vice-president is addressed by letter as *The Honorable, The Vice-president of the United States*, or *The Hon. ————, Vice-president of the United States*. When the latter is acting as *ex-officio* presiding officer of the Senate, he is addressed by the senators as *Mr. President*. Cabinet officers, senators, and representatives of the United States, judges of state and federal courts, and consuls, are all entitled to the prefix *Honorable*, as *The Hon. Senator S. M. Cullom, The Hon. Mr. Justice*, or *The Hon. Judge Day*. Custom also permits the use of *Honorable* to mayors of cities, as *The Hon. Mayor Low*, or *The Hon. Seth Low, Mayor of the City of New York*.

For church dignitaries the terms of address vary somewhat with the denomination. In the Protestant Episcopal Church, the bishop is addressed *The Right Rev. ————*; in the Methodist Church as *The*

Rev. Bishop ———. Clergymen take the title *The Rev.*, or simply *Rev.*, adding any collegiate degrees to which they may be entitled, such as M.A., D.D., LL.D., etc., or in the case of a clergyman who has a doctorate degree, he may be addressed simply: *The Rev. Dr.* ———. It is bad form, it may be added, to speak or write of a clergyman as *Rev. Blake*, *Rev. Morgan*, etc. If his Christian name is not known, use invariably the prefix *Mr.* (Mister), as the *Rev. Mr. Blake*, etc. Archbishops are addressed: *The Most Rev.* ——— ———, D.D. (or whatever degree possessed of); while cardinals are addressed: *His Eminence* ——— ———. Physicians and surgeons are addressed: *Dr.* ——— ———, or *John Abernethy, Esq., M.D.* Lawyers or private gentlemen may be addressed either ——— ———, *Esq.*, or plain *Mr.* ——— ———.

Where husband and wife are both addressed, it is proper to give the title of the former, followed by the word *Mrs.*, using the given name or initials of the husband; thus: *His Excellency, The President, and Mrs. Roosevelt*; *Governor and Mrs. Chas. H. Brown*; or *The Hon. and Mrs. John Bigelow*. In the case of scholastic titles or those conferred by universities, they usually precede the name, thus: *Prof. William Jones*; *Dr. Thomas Brown*, or may follow the name, thus: *Chauncey Depew, Esq., D. C. L.* (Doctor of Civil Law), or ——— ———, *Esq., LL.D.* (Doctor of Laws).

ADJUSTMENT.—A settlement of an account as of a loss by fire or storm.

ADMINISTRATOR.—One authorized by a court to have charge of the goods and estate of another who dies without a will.

AD VALOREM.—According to value. Duties imposed upon the value of imported articles and not estimated by weight or number.

ADVANCES.—Goods, supplies, money, or endorsement, furnished on a contract before any equivalent is received.

ADVICE.—Notice sent to a person concerning drafts upon him, that he may be ready to pay them.

AFFIDAVIT.—A written declaration under oath.

AGENT.—One employed to act for another; a deputy.

AGIO.—The difference in value between metallic and paper money.

ALLONGE.—A small piece of paper attached to a note or draft, upon which to write endorsements when the original document will hold no more,

ARBITRAGE.—The act of buying stock in one market and selling in another.

ARBITRATION.—The determination of a cause of dispute between parties in controversy, by representatives chosen by the respective parties.

ARITHMETIC.—

Being the foundation of all mathematical computation, arithmetic has become a prominent factor in nearly every calling, not excepting even those that have to do with the most advanced calculations, or that have no direct connection with mathematical subjects. Especially in the business world do we find a constant demand for accuracy and speed, for there it is the results of many calculations that largely control the exchange of the various commodities. Nine out of every ten advertisements for office assistants contain the sentence, "Must be quick at figures." This means more than the words themselves indicate. It means, must first be accurate, must always get the right result, and be sure that it is right. It also means that the calculation must be performed quickly, and by the clearest and most direct methods.

In discussing the best ways of fitting one's self to meet these requirements, it will be taken for granted that all are acquainted with the ordinary arithmetical methods, and reference will be made only to short processes, by means of which accurate results may be quickly secured. In order to derive the most benefit from these, you should first acquaint yourself with the method, and when once this has been done speed and accuracy can be acquired only by practice.

It is easily possible to read figures as one does words, not by first understanding the parts and then combining them, but by comprehending the whole, as though it were itself a part. Expert musicians read whole musical phrases in this way, not note by note, but a whole group of notes at a time. And this is the result of regular practice each day; in order that the practice may produce the best results it must be regular.

ADDITION.—It has been said that nine-tenths of all the arithmetic used in the commercial world consists of addition. We see from this statement how necessary it is that every one should be able to add rapidly and accurately. There need be but little mental exertion in adding a column of figures. Let your eyes do the work, and instead of computing the result of each union of two or more of the figures in a column learn to know their sum as soon as you see them. In practising the addition of long columns, group the figures in twos or threes, just as the letters of a long word are grouped in syllables,

Learn to know 9 and 8 make seventeen, just as readily as that 9 times 8 is 72, and with no greater mental effort. Repeat mentally the result of each of the separate additions in a column, but not the process by which that result was obtained. In the accompanying example begin at the bottom of the right-hand column and read as follows:—

3 9 8 } 6 4 2 }	50	11, 28, 40, 50. Now after writing zero below the middle line, begin at the bottom of the middle column, and adding the 5 that is carried, proceed in the same manner as before. The results this time will be, 16, 26, 35, 48.
9 6 5 } 8 3 7 }	40	
4 2 9 } 8 8 8 }	28	In the same way the left-hand column reads, 9, 21, 38, 47. It is not necessary to adhere to the grouping by twos, but as proficiency is acquired by practice, groups of three or more may be handled just as readily. After practising this method for a month you will be surprised at the progress made in both speed and accuracy.
2 6 2 } 3 5 9 }	11	
47 8 0		

To add two columns at the same time get separate results as follows: 39+6+10+2+40+5+30+6+20=158. Combine these mentally without regarding the plus sign, and proceed thus: 39, 45, 55, 57, 97, 102, 132, 138, 158. After practising upon a great number of examples, which you can make up for yourself, you can combine three columns in the same way as in the accompanying illustration:—

815	761 + 8 + 90 + 400 + 3 + 20 + 600 + 5 + 10 + 800 = 2697.
623	769, 859, 1259, 1262, 1282, 1882, 1887, 1897, 2697.
498	Where an accountant's attention is likely to be distracted
761	and he is compelled to leave his work unfinished, the following
2697	plan will be found helpful and time-saving in four-column
	addition: Add the thousands first, and set down the result;
	next add the hundreds, and set the amount one place to the
	right; do the same with the tens and units. Then add the results.
	Thus:—

4967	26	A variation of this method is to begin with	24
5832	23	the units and set each result one place to the	19
9476	19	left as in the accompanying example. This same	23
8239	24	method may be used in the addition of any	26
28514	28514	number of columns.	28514

The great advantage of these methods is that one does not have to remember what to carry, and the work may be resumed after being interrupted.

In very long columns of figures it is often helpful to drop the tens, and make a dot opposite the figure at which the ten is dropped. The result will be found by counting all the dots as tens when the

column is finished, and adding to this sum the number less than ten that remains. Thus:—

Drop ten, keep 7, and add 40.	83	Drop ten, keep 3, and add 60
Drop ten and go on with 9.	79	
	56	“ “ and go on with 1
“ “ “ “ “ “ 7.	42	
	39	“ “ “ “ “ “ 3
	28	“ “ “ “ “ “ 4
	16	“ “ “ “ “ “ 6
“ “ “ “ “ “ 7.	82	
	19	“ “ “ “ “ “ 8
	13	
	16	
	<hr/>	
	473	

A good method of proving a problem in addition is to begin the addition of each column at the top and add downward, thus avoiding a repetition of any error that may have been made in the first addition. It is even safer to separate the columns into two parts, and after adding each of these to combine the results. The sum thus obtained should correspond with that found in the original addition.

Another method of proving the work is as follows:—

8 3 6 2 5	Add across	$8 + 3 + 6 + 2 + 5 = 24$
9 4 3 2 7	“ “	$9 + 4 + 3 + 2 + 7 = 25$
8 1 4 3 2	“ “	$8 + 1 + 4 + 3 + 2 = 18$
6 5 9 8 6	“ “	$6 + 5 + 9 + 8 + 6 = 34$
<hr/>		<hr/>
3 2 5 3 7 0		101
	“ “	$3 + 2 + 5 + 3 + 7 + 0 = 20$
		2 1
		<hr/>
	“ “	$2 + 0 = 2$ and $1 + 0 + 1 = 2$

As the sum of the digits in the result of the cross addition is equal to the sum of the digits in the amount, the accuracy of the work is proved.

Sometimes it happens that two columns of figures that are supposed to be exactly alike cannot be made to give the same total. In that case subtract the less of the two from the greater, and if the remainder is equally divisible by 9 some of the figures have been transposed in copying. If not divisible by 9 then wrong figures have

been copied or there is a mistake in the addition of one of the columns. For example:—

(1)	(2)
836	863
724	724
598	598
362	362
<hr/>	<hr/>
2520	2547
	2520
	<hr/>
	9)27
	<hr/>
	3

Since there is no remainder, some of the figures must have been transposed, and on examination we find that the figures 836 in column 1 have been changed to 863 in column 2.

MULTIPLICATION.—Multiplication may be considered merely a short way of adding. Instead of adding 5 and 5 and 5, we multiply 5 by 3, which is a shorter and simpler way of getting the same result. In the operation of multiplying, as in that of adding, we must keep our minds on results and not on methods. Instead of thinking that 8 times 8 are 64, we say mentally, 8, 8, 64. In this way we not only arrive at the result in the simplest, quickest, and most direct manner, but we also give our memories a very beneficial kind of training. One of the most valuable aids in all kinds of multiplication is a thorough knowledge of the multiplication tables. These should be written and rewritten, and practised mentally, until the product of the two numbers is known just as quickly and with as little thought as the familiar words spelled by certain letters. These tables should not be limited to the first twelve figures, as is usually the case, but should include all the numbers up to twenty. This gives us an easy method of multiplying any number by a second number that is less than 20. Suppose for example, that we are to multiply 437 by 16. We proceed as follows: $16 \times 7 = 112$, carry 11; $16 \times 3 = 48$, $48 + 11 = 59$, carry 5; $16 \times 4 = 64 + 5 = 69$. After a little practice it will be as easy to multiply by any number between 10 and 20 as by those under 10. This method may also be employed with numbers greater than 20, but more practice will be required than in the case of the smaller numbers. In multiplying by numbers containing three or more figures, when any two adjoining ones are less than 20, treat these two as a single number, and place the units figure of the sec-

ond partial product under the hundreds figure of the first partial product, thus:—

$$\begin{array}{r}
 5734 \\
 1613 \\
 \hline
 74542 \\
 91744 \\
 \hline
 \end{array}
 \begin{array}{l}
 13 + 4 = 52, \text{ carry } 5; 13 \times 3 = 39, 39 + 5 = 44, \text{ carry } 4; 13 \times 7 = 91, \\
 91 + 4 = 95, \text{ carry } 9; 13 \times 5 = 65, 65 + 9 = 74. \quad 16 \times 4 = 64, \text{ carry } 6; \\
 16 \times 3 = 48, 48 + 6 = 54, \text{ carry } 5; 16 \times 7 = 112, 112 + 5 = 117, \text{ carry } \\
 11; 16 \times 5 = 80, 80 + 11 = 91.
 \end{array}$$

Another method of multiplying by any number between 20 and 30 is as follows: Multiply each figure of the multiplicand in succession by the units figure of the multiplier, and add not only what is carried, but also double the next right-hand figure of the multiplicand: multiply the first figure of the multiplicand by the tens figure of the multiplier, and add only what is carried, thus:—

$$\begin{array}{r}
 3496 \\
 28 \\
 \hline
 97888
 \end{array}
 \begin{array}{l}
 8 \times 6 = 48, \text{ carry } 4; 8 \times 9 = 72, 72 + 4 + (2 \times 6) = 88, \text{ carry } 8; 8 \times 4 = \\
 32, 32 + 8 + (2 \times 9) = 58, \text{ carry } 5; 8 \times 3 = 24, 24 + 5 + (2 \times 4) = 37, \\
 \text{carry } 3; 2 \times 3 = 6, 6 + 3 = 9. \quad \text{This method may also be employed} \\
 \text{in multiplying by numbers between 30 and 40, by adding three} \\
 \text{times the next right-hand figure of the multiplicand, instead of its} \\
 \text{double; thus:—}
 \end{array}$$

697 $2 \times 7 = 14$, carry 1; $2 \times 9 = 18$, $18 + 1 + (3 \times 7) = 40$, carry 4; 2×6
 32 $= 12$, $12 + 4 + (3 \times 9) = 43$, carry 4; $3 \times 6 = 18$, $18 + 4 = 22$. To
 22304 multiply by any number of 9's, annex to the multiplicand as
 many ciphers as there are 9's in the multiplier, and from the
 number thus obtained subtract the multiplicand. Thus in the accom-
 panying example, since there are three 9's in the multiplier, add three
 ciphers to the multiplicand, and subtract the multiplicand from the
 amount thus found:—

35749 By the 'method' of "cross multiplication" two large num-
 999 bers may be multiplied together in a single line. Write
 35749000 the multiplier below the multiplicand, as in ordinary multi-
 35749 plication, and proceed as follows:—

35713251 $3 \times 4 = 12$; write down the 2 as in the units figure of the
 34 product and carry 1. $(3 \times 3) + (2 \times 4) + \text{the } 1 \text{ carried} = 18$;
 23 write 8 as the tens figure of the product and carry 1; $(2 \times 3) + 1$
 782 $= 7$, which completes the product. In multiplying a number of
 three figures by one containing only two, proceed in a similar
 manner, thus:—

237 $4 \times 7 = 28$, write 8 and carry 2; $(4 \times 3) + (2 \times 7) + 2 = 28$, carry 2;
 24 $(4 \times 2) + (2 \times 3) + 2 = 16$, carry 1; $(2 \times 2) + 1 = 5$, which completes
 5688 the product. Two numbers, each containing three figures, are
 treated in a similar manner, thus:—

234 $6 \times 4 = 24$, write 4 and carry 2; $(6 \times 3) + (4 \times 4) + 2 = 36$, carry 3;
 346 $(6 \times 2) + (3 \times 4) + (4 \times 3) + 3 = 39$, carry 3; $(4 \times 2) + (3 \times 3) + 3 = 20$,
 80964 carry 2; $(3 \times 2) + 2 = 8$, which completes the product.

An even easier method than the one that has just been explained is the "sliding method," which, in reality, is nothing more or less than cross multiplication. It is better for use with large numbers, however, and the mental operations can be performed with less difficulty than in "cross multiplication." After one has become thoroughly familiar with the "sliding method," by constant practice he will be able to perform large operations with astonishing ease and quickness. The best way of learning this method is as follows: Suppose you wish to multiply 735 by 234. Write the multiplicand and the multiplier on separate pieces of paper with the figures of the multiplicand arranged in reverse order; thus, 537. Now place the multiplier directly beneath the multiplicand so that the 4 will come under the 5 thus:

$\begin{array}{r} 537 \\ 234 \\ \hline 0 \end{array}$	<p>Obtain the first figure of the product, 0, by multiplying the 5 by the 4, carry 2. Now slide the upper paper to the left so that 4 will come under 3, and 3 under 5, thus:</p>
$\begin{array}{r} 537 \\ 234 \\ \hline 90 \end{array}$	<p>Obtain the second figure of the product thus: $(4 \times 3) + (3 \times 5) +$ the 2 carried = 29, write 9 as the tens figure of the product and carry 2. Again slide the upper paper to the left so that 4 under 7, thus:</p>
$\begin{array}{r} 537 \\ 234 \\ \hline 990 \end{array}$	<p>Obtain the third figure of the product, thus: $(4 \times 7) + (3 \times 3) + (2 \times 5) +$ the 2 carried = 49, write 9 as the hundreds figure of the product and carry 4. Slide the paper again as before and 2 will come under 3, and 3 under 7, thus:</p>
$\begin{array}{r} 537 \\ 234 \\ \hline 171990 \end{array}$	<p>You now get $(3 \times 7) + (2 \times 3) + 4 = 31$; write 1 as the thousands figure of the product and carry 3. Slide the paper again and 2 will be under 7, thus:</p>
	<p>You now get $(2 \times 7) + 3 = 17$. This completes the product.</p>

You will see from the foregoing that the figures are used in exactly the same way as in "cross multiplication." The sliding method, however, saves the mental labor of remembering the different positions of the figures, which is easy only after long practice. When you have become thoroughly familiar with the sliding method by the use of the slide, you may proceed without it and write the multiplier below the multiplicand on the same piece of paper, as in ordinary multiplication. The following is an example worked in this manner, in which only the different results are indicated:

$\begin{array}{r} 7453 \\ 325 \\ \hline 1152775 \end{array}$	<p>To multiply 3547 by 325, reverse the multiplicand and proceed as follows: $5 \times 7 = 35$; $(5 \times 4) + (2 \times 7) + 3 = 37$; $(5 \times 5) + (2 \times 4) + (3 \times 7) + 3 = 57$; $(5 \times 3) + (2 \times 5) + (3 \times 4) + 5 = 42$; $(2 \times 3) + (3 \times 5) + 4 = 25$; $(3 \times 3) + 2 = 11$.</p>
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To prove a problem in multiplication divide the product by the multiplicand, and if the quotient gives the multiplier the multiplication is correct. A second method is similar to that employed in

proving addition by the cross addition of the digits in the numbers. Multiply the sum found by the cross addition of the digits of the multiplicand by that found in a similar way from the multiplier; add the digits of this product and the sum should be the same as the sum of the digits in sum found by the cross addition of the digits of the original product of the multiplication. Thus:—

$$\begin{array}{r}
 234 \\
 145 \\
 \hline
 33930
 \end{array}
 \quad
 \begin{array}{l}
 2 + 3 + 4 = 9 \\
 (3 + 3 + 9 + 3) \text{ annex } 0 = 180
 \end{array}
 \quad
 \begin{array}{r}
 1 + 4 + 5 = 10 \\
 \hline
 90
 \end{array}
 \quad
 \begin{array}{l}
 9 + 0 = 9 \\
 1 + 8 + 0 = 9
 \end{array}$$

Multiplication by Aliquot Parts.—In commercial arithmetic it is very important that one should have a perfect knowledge of aliquot parts of 10, 100, and 1000, and of its practical use. Suppose, for example, that you wish to multiply by $3\frac{1}{3}$. Now since $3\frac{1}{3} = \frac{10}{3}$, you may multiply by 10 and divide by 3. Since $33\frac{1}{3} = \frac{100}{3}$, to multiply by $33\frac{1}{3}$ you may multiply by 100 and divide by 3. You will find that in a similar manner many whole and mixed numbers may be used in fractional form, and a large amount of time saved thereby.

Following is a partial list of such numbers:—

$1\frac{1}{9} = \frac{10}{9}$	$14\frac{2}{7} = \frac{100}{7}$	$125 = \frac{1000}{8}$
$1\frac{1}{4} = \frac{10}{8}$	$16\frac{2}{3} = \frac{100}{6}$	$150 = \frac{300}{2}$
$1\frac{3}{7} = \frac{10}{7}$	$25 = \frac{100}{4}$	$166\frac{2}{3} = \frac{1000}{6}$
$1\frac{2}{3} = \frac{10}{6}$	$33\frac{1}{3} = \frac{100}{3}$	$175 = \frac{700}{4}$
$2\frac{1}{2} = \frac{10}{4}$	$37\frac{1}{2} = \frac{300}{8}$	$250 = \frac{1000}{4}$
$3\frac{1}{3} = \frac{10}{3}$	$50 = \frac{100}{2}$	$275 = \frac{1100}{4}$
$5 = \frac{10}{2}$	$62\frac{1}{2} = \frac{500}{8}$	$333\frac{1}{3} = \frac{1000}{3}$
$6\frac{1}{4} = \frac{100}{16}$	$66\frac{2}{3} = \frac{200}{3}$	$375 = \frac{3000}{8}$
$8\frac{1}{3} = \frac{100}{12}$	$75 = \frac{300}{4}$	$450 = \frac{900}{2}$
$12\frac{1}{2} = \frac{100}{8}$	$87\frac{1}{2} = \frac{700}{8}$	$625 = \frac{5000}{8}$
		$875 = \frac{7000}{8}$

SUBTRACTION.—Since subtraction is concerned with only two numbers there is no way of shortening the operation appreciably. In mental subtraction, such as in making change, it is sometimes convenient to subtract the tens figure first, and then the units. Suppose, for example, that you wish to return change from a dollar tendered in payment for an article that cost 32 cents. Subtract 3 from 9, leaving 6, and 2 from 10, leaving 8. In this way you find that you must return 68 cents in change. Of course you would have obtained the same result if you had subtracted the 2 first, but the other method is considered by many to be preferable.

DIVISION.—There are few methods of shortening the operation of division that are at all practical, for though there are numerous so

called "short cuts," their complexity deprives many of them of utility. After acquiring a thorough knowledge of the multiplication tables for the numbers up to 20, it will be found a rapid and convenient method when dividing by one of these numbers to perform the operation by "short division." Thus: $14) 289756947$ Divide through by 14 as $20696924\frac{11}{14}$ though it were a number of one digit, omit the partial subtractions, and record only the quotient and the remainder. When possible to do so it is sometimes convenient to separate the divisor into factors, and proceed as follows: To divide 485923 by 96, divide 96 into its factors 12 and 8 and divide first by 12, then by 8:—

$$\begin{array}{r} 12) 485923 \\ 8) 40493 \dots 7 \text{ remainder} \\ 5061 \dots 5 \end{array}$$

There is a remainder left after each division, but the true remainder is $(12 \times 5) + 7 = 67$, hence the result of the division is $5061\frac{67}{96}$.

One of the best methods of shortening the operation of division is by the use of aliquot parts in a manner similar to that in multiplication. Suppose, for example, that you wish to divide 896745 by

$$166\frac{2}{3}. \text{ Now } 166\frac{2}{3} = \frac{1000}{6}, \text{ hence } \frac{896745}{166\frac{2}{3}} = \frac{896745}{1} \div \frac{1000}{6} = \frac{896745}{1} \times \frac{6}{1000}.$$

You therefore, multiply by 6 and point off three places of decimals, the latter being equivalent to division by 1000. Thus the result is:—

$$\frac{896745}{1} \times \frac{6}{1000} = \frac{5380470}{1000} = 5380.47.$$

In a somewhat similar manner we may treat the aliquot parts as decimals instead of fractions: thus in the foregoing example instead of multiplying by the fraction $\frac{6}{1000}$ the same result would be obtained by multiplying by the decimal .006. This applies to all of the numbers given in the table of aliquot parts under the subject of Multiplication.

The following hints regarding the divisibility of various numbers will be found useful:—

Any number is divisible by 2 if its last digit is even.

Any number is divisible by 3 if the sum of its digits is divisible by 3.

Any number is divisible by 4 if it ends with two or more ciphers, or if the number expressed by its two right-hand figures is divisible by 4.

Any number is divisible by five if its right-hand figure is a 5 or a 0.

To multiply together two mixed numbers in which the whole numbers are the same, and the sum of the two fractions equal 1, as in $7\frac{1}{3}$ and $7\frac{2}{3}$, multiply the whole numbers by the next higher whole numbers, and to this product annex the product of the fractions. Thus: $7\frac{1}{3} \times 7\frac{2}{3} = (7 \times 8) + (\frac{1}{3} \times \frac{2}{3}) = 56\frac{2}{9}$.

To multiply together any two numbers, each of which contains the fraction $\frac{1}{2}$, add to the product of the whole numbers half their sum plus $\frac{1}{4}$. Thus: $6\frac{1}{2} \times 8\frac{1}{2} = (6 \times 8) + \frac{1}{2} (6 + 8) + \frac{1}{4} = 55\frac{1}{4}$. In a similar manner to multiply together two numbers each containing $\frac{3}{4}$ add to the product of the whole numbers $\frac{3}{4}$ of their sum plus $\frac{9}{16}$. Thus: $6\frac{3}{4} \times 8\frac{3}{4} = (6 \times 8) + \frac{3}{4} (6 + 8) + \frac{9}{16} = 59\frac{1}{16}$. A similar method may be employed in all cases where the fractions are alike.

Although the foregoing methods will often be found useful, the best general method for multiplying mixed numbers is to reduce them to improper fractions and multiply by cancellation. Thus:

$$8\frac{4}{7} \times 14\frac{7}{8} = \frac{60}{7} \times \frac{119}{8} = \frac{255}{2} = 127\frac{1}{2}.$$

Decimals.—It often happens that in operations involving decimals the result is required to be correct only to two or three decimal places, hence it is advisable to avoid work that gives more decimals than are required. Suppose, for example, that you wish to find to the nearest cent the cost of $26\frac{3}{4}$ bushels of wheat at $62\frac{1}{2}$ cents a bushel. Write the multiplier with the figures reversed under the multiplicand so that the units figure (6) of the former falls directly beneath the units figure (2) of the latter. Now proceed as indicated by the figures at the right, getting the figures to carry by multiplying the figure used in the multiplier by the next figure of the multiplicand to the right of it.

$$\begin{array}{r} 6225 \\ 5762 \\ \hline 1245 = (2 \times 622) + 1 \text{ (carried from } 2 \times 5 = 10) \\ 373 = (6 \times 62) + 1 \text{ (" " } 6 \times 2 = 12) \\ 43 = (7 \times 6) + 1 \text{ (" " } 7 \times 2 = 14) \\ 3 = (5 \times 0) + 3 \text{ (" " } 5 \times 6 = 30) \\ \hline \$16.64 \end{array}$$

In determining what number to carry if the product from which the carrying number is obtained is between 5 and 14 (inclusive) carry 1; if between 15 and 24 (inclusive) carry 2; and so on. If it is desired to have the product correct to three decimal places,

arrange the numbers as before, and in multiplying by each number in the multiplier begin with the first number to the right of it in the multiplicand. Thus, in the same problem, proceed as indicated. It

$$\begin{array}{r}
 6225 \\
 5762 \\
 \hline
 12450 = 2 \times 6225 \text{ (nothing to carry)} \\
 3735 = (6 \times 622) + 3 \text{ (carried from } 6 \times 5 = 30) \\
 435 = (7 \times 62) + 1 \text{ (" " " } 7 \times 2 = 14) \\
 16.631 = (5 \times 6) + 1 \text{ (" " " } 5 \times 2 = 10) \\
 \hline
 \$16.651
 \end{array}$$

will be observed that there is a difference of 1 cent in the two results, which shows that the latter method is more accurate, and hence is the better to use even in finding the result of the two decimal places.

The division of decimals may be shortened in a nearly similar manner, when the quotient is required to a given number of decimal places. Thus: to divide 65.743 by 3.1846, the result to be correct to two decimal places proceed as follows: Write the dividend and divisor as in ordinary division, without reversing either. You see that the whole number of the divisor is contained in the whole number of the dividend a number of times such that there will be two places of whole numbers in the quotient. Now as you are to limit the number of decimal places in the quotient to two, the entire quotient will contain four places. Hence take only the first four places of the divisor, that is 3184, and strike out the fifth place. Proceeding as in ordinary division, you find that the first figure in the quotient is 2. Now, in multiplying the divisor by this 2 multiply by the 6 that was struck out, so as to get the carrying figure, hence you get $(2 \times 3184) + 1$ (carried from $2 \times 6 = 12$) = 6369. Subtracting, you get 205 as a remainder. Do not bring down the next figure in the dividend, as in ordinary division, but instead strike out the next right-hand figure of the divisor (4). Now since 318 is not contained in 205, write a 0 in the quotient, and strike out the next right-hand figure of the divisor (8). The next figure in the quotient is 6, since 31 is contained 6 times in 205. Proceeding as in the first part of the operation you get: $(6 \times 31) + 5$ (carried from $6 \times 8 = 48$) = 191. Subtract as before and strike out the next right-hand figure of the divisor. The next figure of the quotient, which is obtained as before is 14. This com-

pletes the operation, and gives the result to two decimal places. The result may be found to three decimal places in a similar manner by using all of the five places in the divisor, instead of only four.

PERCENTAGE.—The calculation of percentage is an operation that is required very frequently in the commercial world, and speed and accuracy in its computation are very necessary. The various rates per cent. may be expressed in three different ways, namely, with the per cent. sign (%), as fractions, or as decimals. As each of the methods is useful at various times a study of the following table of equivalents may be found to be of benefit:—

1 % = $\frac{1}{100} = .01$	20 % = $\frac{1}{5} = .2$
$2\frac{1}{2}$ % = $\frac{1}{40} = .025$	25 % = $\frac{1}{4} = .25$
$3\frac{1}{3}$ % = $\frac{1}{30} = .033\frac{1}{3}$	$33\frac{1}{3}$ % = $\frac{1}{3} = .33\frac{1}{3}$
5 % = $\frac{1}{20} = .05$	50 % = $\frac{1}{2} = .5$
$6\frac{1}{4}$ % = $\frac{1}{16} = .0625$	$66\frac{2}{3}$ % = $\frac{2}{3} = .66\frac{2}{3}$
8 % = $\frac{2}{25} = .08$	75 % = $\frac{3}{4} = .75$
$8\frac{1}{3}$ % = $\frac{1}{12} = .08\frac{1}{3}$	$87\frac{1}{2}$ % = $\frac{7}{8} = .875$
10 % = $\frac{1}{10} = .1$	$\frac{1}{2}$ % = $\frac{1}{200} = .005$
$12\frac{1}{2}$ % = $\frac{1}{8} = .125$	$\frac{3}{4}$ % = $\frac{3}{400} = .0075$
$16\frac{2}{3}$ % = $\frac{1}{6} = .16\frac{2}{3}$	

Often in commercial transactions two or more discounts are allowed, as, $33\frac{1}{3}\%$ and 10% . In computing these, subtract each from 100% and multiply together the two results. This last result will give the desired "net" after deducting the single discount corresponding to the various others taken together. Thus to find the net amount of a bill of \$500 on which there are allowed 25% and 20% discount, proceed as follows: $1.00 - .25 = .75$; $1.00 - .20 = .80$; $1.00 - .10 = .90$; $.75 \times .80 \times .90 = .54$. 54% of \$500 = \$270, which is the "net" of the bill.

To mark goods purchased by the dozen so as to make a certain rate of profit, proceed as follows:—

To make 18¾% move decimal point in cost one place to the left and add 1⁄96 of itself																
"	"	16¾%	"	"	"	"	"	"	"	"	"	"	"	1⁄36	"	"
"	"	12¾%	"	"	"	"	"	"	"	"	"	"	"	1⁄16	"	"
"	"	20 %	"	"	"	"	"	"	"	"	"	"	"	0	"	"
"	"	25 %	"	"	"	"	"	"	"	"	"	"	"	1⁄24	"	"
"	"	26 %	"	"	"	"	"	"	"	"	"	"	"	1⁄20	"	"
"	"	28 %	"	"	"	"	"	"	"	"	"	"	"	1⁄18	"	"
"	"	30 %	"	"	"	"	"	"	"	"	"	"	"	1⁄12	"	"
"	"	32 %	"	"	"	"	"	"	"	"	"	"	"	1⁄10	"	"
"	"	33¼%	"	"	"	"	"	"	"	"	"	"	"	1⁄9	"	"
"	"	35 %	"	"	"	"	"	"	"	"	"	"	"	1⁄8	"	"
"	"	37 %	"	"	"	"	"	"	"	"	"	"	"	1⁄7	"	"
"	"	40 %	"	"	"	"	"	"	"	"	"	"	"	1⁄6	"	"
"	"	44 %	"	"	"	"	"	"	"	"	"	"	"	1⁄5	"	"
"	"	50 %	"	"	"	"	"	"	"	"	"	"	"	1⁄4	"	"
"	"	60 %	"	"	"	"	"	"	"	"	"	"	"	1⁄3	"	"
"	"	80 %	"	"	"	"	"	"	"	"	"	"	"	1⁄2	"	"

If a man buys socks at \$4.50 a dozen pairs, and desires to mark them so as to make 35% on each pair, he may determine the marking price per pair by reference to the table, as,

Removing the decimal point of 4.50 one place to the left, he gets .45. Adding to this $\frac{1}{9}$ of 45 ($=5$) he finds that the selling price a pair must be \$0.50.

There are numerous methods for shortening the operation of finding the interest on a given sum, at a given rate per cent., for a given number of days, months, or years, but the best practical method for ordinary use is by means of cancellation. Write the principal multiplied by the rate per cent., multiplied by the time in years (for instance), as the numerator of a fraction and 100 as the denominator, then find the result by cancellation. If the time is given in months, write the number of months as part of the numerator, and 12 as a part of the denominator. Thus to find the interest

on \$500, 6% for 9 months we get $\frac{\$500 \times 6 \times 9}{100 \times 12} = \frac{45}{2} = \22.50 . If the time

is given in days, write the number of days as part of the numerator and 360 as part of the denominator, since in ordinary operations in interest the year is regarded as made up of 360 days. As the year really contains 365 days, however, we must write 365 in the denominator instead of 360, if we desire to be exact. Having found the interest by regarding the year as made up of 360 days, if we desire to find what it would be on the basis of 365 days, we need only subtract from the interest first found $\frac{1}{73}$ of itself. Thus, if the interest on a certain amount for a certain time is \$146, on the basis of 360 days to the year, we may find what it is on a 365 day basis as follows:—

$\$146 - (\frac{1}{73} \text{ of } \$146) = \$144$. With sums of \$500 or less, or with times of 30 days or less, the difference in the use of the two bases is too small to be appreciable.

Following is a very useful rule for calculating 6% interest on any sum for a given number of days: multiply the sum of money by the number of days, point off three places of decimals, and divide by 6. The quotient is the desired interest. Thus: Find interest on \$639 at 6% for 11 days. $639 \times 11 = 7029$; $7029 \div 6 = \$1.17$.

ASSETS.—All the property of every sort, belonging to a business or any individual, solvent, bankrupt, or deceased.

ASSIGNEE.—A person to whom an assignment is made.

ASSIGNMENT.—The transfer of a whole or part of an interest in an estate or property.

ASSUME.—To take upon oneself, as a debt or an obligation.

ASSURED AND ASSURANCE.—The same as insured and insurance.

ATTACHMENT.—A taking of the person, goods, or any property by legal process, to secure a debt or demand.

ATTORNEY.—One legally appointed by another to transact business for him. Such power is called power of attorney.

AUCTION.—A public sale of property to the highest bidder.

AUDIT.—To examine and adjust accounts.

AVERAGES.—In marine insurance there are two kinds, particular and general. A particular average is a *pro rata* contribution levied upon all underwriters to cover damages to a vessel from "accidents of the sea." A general average is a contribution levied upon ship-owners, and owners of cargo or freight for mutual protection as the cutting away of masts or rigging, etc., or throwing goods overboard.

AWARD.—The decision of a board of arbitrators in a case.

BALANCE.—The difference between the debit and credit sides of an account.

BALANCE ACCOUNT.—A general account in the Ledger to which are transferred at a certain date the balances of all other accounts. This then indicates the financial condition of the business.

BALANCE SHEET.—A statement of affairs at a given period based upon the books and accounts. It sets forth the capital, liabilities, assets, and funds on hand.

BALANCE OF TRADE.—The difference in value between the exports and the imports of a country.

BALE.—A bundle of goods in a cloth cover, ready for carriage.

THE LADDER TO SUCCESS IN BANKING

By LYMAN J. GAGE.



I SHALL deem myself fortunate if I can paint in adequate language, for the young men of our glorious country, the magnificent prospect which opens before us in the new century. With a land whose material resources are just coming into view; with a population strong, vigorous, inventive, and full of enterprise; with a climate stimulating to mental and physical activity, what may not be expected in the way of material accomplishment? But these conditions will be deeply affected by the moral quality and political wisdom of our people, particularly of our young men. A right knowledge of our true relationships, a mutual confidence between sections, and a loyal adherence to true economic and financial laws, are conditions precedent and indispensable to the highest degree of attainment, whether in material progress or in social happiness. To promote these conditions, to help to the realization of these results, the judicious coöperation of intelligence and of patriotism is necessary. In this needful coöperation, the banker is an all-important factor. May he never be found wanting!

Now, what qualities must a young man have to make a successful banker,—that is, one who is upright, intelligent, and reliable? A true sense of patriotism is the first essential, for in no other relation is the state so dependent on the integrity of its servants. The man who handles finances, whether public or private, must give his best thought and his best efforts to the betterment of his country and of his fellow-citizens; for this is, in the highest type, the cause of humanity.

The successful banker must be a trained man, and, as a rule, he goes through a long and rigorous novitiate. He must have a realizing sense of the truth of the proverb: "A teachable spirit is essential to the gaining of wisdom." Certainly it is essential for the gaining of financial acumen, and I would advise all aspirants for success along financial lines to frame this proverb in their offices or bedrooms. Originality counts for a great deal; but it is safer, when one is young, to follow the beaten track, and to profit by the wisdom of those who have learned in the

school of experience. When experience comes, you will be in better shape to profit by it. More solid fortunes have been made by industry and perseverance than in the so-called *coups* of the market.

It goes without questioning that integrity is an indispensable quality. A young man must learn to be mentally honest,—that is, he must not deceive himself. A wise father said to his son who was called to the bench: "My boy, in giving judgment, be not ruled by love or by hate, for both are equally disastrous to justice." It would be trite to say that in no occupation can a young man succeed without industry, but this is particularly applicable in the banking business. Finance is a hard mistress to serve, and she showers her favors only on those who woo her untiringly, and with unfaltering devotion. She requires all the time, energy, and effort of a young man's life. After the usual working hours, she insists on extra duty.

You must plan and study and work out your own problems and solve your own difficulties. As in the case of learning, no royal road leads to success. But few occupations offer more flattering rewards than the banking business. It is a healthy sign of the times that the majority of successful financiers have risen from the ranks. Some men, whose word now affects the world of money to the uttermost ends of the earth, began life as bank messengers. They struggled and studied, observed conditions around them, and picked up the golden words of wisdom which fell from the lips of the Solons of their line,—in a word, they solved the problems, and made their fortunes. Patriotism, courage, integrity, industry, perseverance, and an intelligence which embraces all practical branches,—these are the qualities necessary for the young man who aims to be a successful banker.

But this question has also an academic side, and there are many points which as yet are not definitely settled and determined. Forty years ago, we had no such problems as we now face. The Civil War burdened us in many ways, not the least being the financial load placed upon our shoulders. Our bankers, since that trying period, have had more arduous duties to perform, more difficult threads to untangle. Drastic legislation struck down the faulty system of bad currency, and established another, the immediate purpose of which was to facilitate the negotiation of the rapidly growing public debt. Through taxation, every channel was drained, and these influences, acting both separately and conjointly, brought vast sums of money which were locked away from current use in trade and industry. The banker had to face the "greenback" problem, a measure which, even in the trying days of the Civil War, had been adopted with fear and hesitation by all thoughtful statesmen and financiers. But the "greenback" was then, as it is now, associated in the minds of the people with things sacred. It is "battle-scarred,—battle-stained," and every effort

which bankers made to throw upon it the light of economic truth was, and still is, in many quarters resented as a sacrilege.

As if this problem left by the Civil War were not enough, bankers have, through political compromise, been made to assume others. The complications introduced into an already serious difficulty by the legislation concerning the silver coinage and money standard, between 1878 and 1893, is familiar to even the youngest financiers. Now, what is the present situation?

We have in circulation among the people, and as a reserve fund in the banks, three hundred and forty-six million dollars' worth of government notes. They constitute an enormous public debt, payable on demand. We have, or soon will have, substantially six hundred millions of silver, or paper representatives of silver, whose parity with gold value the government is under obligation to maintain. The ultimate measure of this obligation is the difference between the commercial value of the money metal and the face value at which it circulates. This difference is not far from three hundred million dollars.

We have a system of banknote currency whose volume is but faintly related to the needs of the community, which a properly constructed bank currency most economically serves. It is, on the contrary, as all know, controlled as to volume by the price of interest-bearing United States bonds in Wall Street.

The banker, whether acting as the servant of the people in the government offices, or doing business for himself, has it within his power to work much good or evil. His peculiar position is that of an intermediary in affairs, and this gives him an exceptional opportunity to study and grasp these momentous questions. His interests, tied as they are to varied and multiplied business activities, put him under bond to do all he can for the general welfare. Upon his character, intelligence, and fidelity to duty and truth, as applied to all these questions touching the national honor or private trust, the country has a right to rely with implicit confidence.

Here in our own land, we are witnesses of the metamorphosis of previous conditions and methods of business. The consolidation of capital, the centralization of industries, excite new and serious inquiry as to the consequences and effects they may carry in their train. Are they the natural and healthful unfolding of a true economic movement?

Will they carry beneficial fruits which will find an equitable distribution through the body politic as a whole, or will they prove to be engines of power, by the aid of which the few can exploit the many?

My faith is strong in the first direction, but the real meaning and future influences of these modern phenomena should be studied and made clear to the general comprehension. Grave consequences depend upon

it. Two dangers are apparent. One is that, through prejudice and ignorance, we may block the path of natural progress. The other is that the force and power involved in these great organizations may be utilized for oppression and robbery. To the banker, the country looks for safety. May he never be found lacking in those qualities of mind, of heart, and of head which must form the country's safeguard.

THE MAKING OF A BANKER

By *GEORGE G. WILLIAMS*

President of the Chemical National Bank of New York

THE making of a banker is a slow process. The man who reaches an important position in any substantial bank, does so only by long years of faithful and painstaking service, either in the particular bank with which he is identified, in some other banking institution, or in a commercial house. I have no sympathy with any man's ambition to become rich over night. Such an ambition is unwholesome and dangerous, and is the offspring of aggravated avarice and ill-advised enterprise. One can count on the fingers of a single hand almost all the men in this country who have retained suddenly acquired riches. A longer time is required to learn how to take care of wealth than to learn how to acquire it. As the founder of the house of Rothschild once said: "It is easier to make money than to keep it." To the men who have suddenly come into possession of wealth, but who have been for years laying the foundations of their fortunes, I do not, of course, refer.



The banking business is not the one for the youth who is ambitious to be a rich man at thirty. But for him who is intelligent, persevering and patient, willing to wait and to work hard for his reward, banking offers a most satisfactory career. A man can achieve success in this profession without brilliancy or any unusual gifts. But he must have a high standard of integrity, and the strong will necessary to live up to this standard amid the temptations of the banker's life. The first thing we do when we contemplate engaging a young man is to satisfy ourselves that he is honest and strong; the rest does not bother us. Having such material to work with, we can soon make a banker.

But the young man must have, or must acquire, the habit of politeness. When I became assistant paying teller, I recognized the necessity

of uniform courtesy to all. It was then that the formative influences of early life became of practical value to me. My childhood had been spent in a professional atmosphere. Culture and refinement surrounded me at home, and I would have been a pretty poor specimen of humanity if I had not become to some extent imbued with these qualities. My father and mother always showed the strongest contempt for duplicity and cowardice. I learned to share their feelings, and have tried to impart my ideas in this respect to all who have come under me in the bank.

At the very beginning of my experience, I observed that many a shabby coat hid a package of bonds or a snug sum of money, and that fine attire did not always cover a millionaire. This knowledge suggested to me the prudence, as well as the justice, of being courteous on all occasions, and I have always made it a rule of the bank that its employees be considerate and polite to every one. Many an important customer has been lost to a bank through the incivility or neglect of an employee. We act on the principle that an ounce of politeness saves a ton of correction. The officers and clerks of this bank, being always civil to those who enter its doors, have set an example to clerks and messengers coming in here, which has borne good fruit, as we have been told by their employers. If I had twenty tongues, I would preach politeness with them all, for a long experience has taught that its results are tangible and inevitable. It is the Aladdin's lamp of success.

If a man is a gentleman, he can lift a trade up to the standard of a profession. A man can make of banking a trade, a business, or a profession. Some men go into a bank with no other ambition than to be useful machines; at a salary and in a position for life. This is by no means an illaudable ambition, as such men have usually recognized their inability to grasp questions of finance, and measure their desires by their capacity. These intellectual machines are an invaluable part of the mechanism of a bank, and, if the president be wise, he will treat them well, pay them fairly, and try to keep them contented. Of course, the men to whom I refer are often able, and are philosophically resigned to good, steady situations that secure to themselves and their families comfortable incomes.

These men are unprogressive, and after reaching a certain stage of their careers they rarely acquire new knowledge. To attain to positions of high authority in banking, a man must be on the alert for information and try to profit by each new experience. To speak personally, the most valuable part of my training was received when I became a discount clerk. The handling of commercial paper is one of the most difficult functions of a bank. Any fairly educated man can acquire the technical features of banking, but the science of banking is the study of men. The discounting of paper peculiarly involves such a study. In the dis-

count department I learned that the basis of all great institutions is in the character of the men who control them, and not in the brick and mortar, steel rails or money which are behind them. A man may be a member of a most reputable and wealthy concern, but, if he lives beyond his means, it is necessary to be very careful about his or his firm's paper, for his course is a dangerous one. The principle applies equally to great corporations, which from time to time require loans on their securities. Finance is so intimately connected with all human affairs, that the man at the helm of a great bank must watch all the points of the compass for warnings of impending storms. It is the study and knowledge of extraneous matters in their relation to finance that make banking a profession.

To find in banking a satisfactory career, a young man must not, as I have said, hurry to acquire wealth. He should not only live within his income, no matter how small, but should save a little. This may be hard to do, but it is indispensable, and I don't know of a successful man, who has made his own money, who has not had to do it. The youth should remember that knowledge increases his capacity to make money, and so should devote his evenings to study and reading. He should also avoid bad company, not only in people, but in books and newspapers. Self-denial is at times painful, but it is part of the fiery ordeal that produces the true metal. Trouble should always be faced squarely. We often see lions in our paths, which, upon approach, prove to be shadows. The value of time is too little appreciated and cannot be measured by money. A young man should be careful to avoid temptation beyond what he has strength of mind to resist. Temptation strengthens character, if resisted,—but it is a very dangerous thing to trifle with. The great trouble with most country boys who come to the city is that they haven't sufficient stamina to resist temptation. All such would do better to stay at home. The cause of disaster to many country boys in the city is not in themselves so much as in their surroundings. They are sociably inclined, but have, as a rule, no society, save that which they pick up, and which too often proves not only unprofitable, but actively pernicious. The city boy, on the other hand, has the advantage of home and high social influences to guide and restrain.

I should say to young men anxious to make the most of their lives: "Live to build up a temple within yourself. Fear God and do your duty,—that means, to yourself and to your fellow-men. God has given you the rough marble; shape it into divine form or shatter it, as you will. It all rests with yourself."

THE MANAGEMENT OF A BANK

By JAMES G. CANNON

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IT is not my purpose at this time to go into a lengthy discussion of any particular branch of the banking business, but I shall endeavor to enumerate some special points which I believe worthy of consideration in conducting the business of a successful banking institution. No one can dispute the fact that this is an age of great advancement; and it seems to me that progress should manifest itself not only in the development and perfection of the steam engine, the telephone, and the X rays, but quite as much in the machinery of the banking business, and in all legitimate mercantile pursuits. Competition in all lines is steadily increasing, thereby narrowing the margin of profit, and it is important that we should so adjust the intricate machinery of our business by the introduction of modern methods of conducting it that we shall not only keep abreast of the times, but, if need be, a little in advance of them.

The preference for antiquated methods is well illustrated by the fact that there are to-day scattered over the country a large number of banking institutions that are suffering from dry rot, and this may be attributed largely to the fact that their officers are timid about advancing new theories and outlining up-to-date policies in the management of their business; consequently, the banks, with their listless and indifferent directors, coupled with small profits, barely manage to maintain their existence.

For convenience, I have divided my subject into four parts: First, The Business of a bank; second, Its Officers; third, Its Employees; fourth, Its Machinery.

First, Its Business. A bank should not be organized nor its business conducted for any one set of men or class of trade. No bank can be successful when managed exclusively in the interest of a political party, whether Republican, Democratic, Prohibition, or Populist. Neither can it be expected to prosper when conducted for the benefit of one section of the country — East, West, North, or South — nor when managed for the sole interest of one religious denomination, whether Presbyterian, Baptist, Episcopalian, Hebrew, or Catholic. While a good bank should know neither politics nor religion, I believe that every bank, as well as every other institution or business, should be conducted on strictly Christian principles. A bank should so unite the different interests of a community that all may contribute to its success and prosperity.

As an organized and legalized money-lender, a bank, in making loans, should endeavor, as far as possible, to avoid favoring any one class of the business community above another. It should so distribute its funds that no matter what financial complications may arise, its loans shall be diversified and its risks divided in such a manner as to insure it against anything but comparatively slight losses. It should never extend such a large credit to any one person or firm that the failure of such a party or parties would embarrass or imperil the institution. Over-lending is an error that a bank officer is very liable to fall into, as it is so much easier to loan freely to a person whom we believe to be perfectly sound and solvent than to go to the trouble of investigating a large number of borrowers and dividing the risks. Many bank failures have been the result of loaning to single firms and individuals larger amounts than were prudent or lawful.

A well-known writer states that the most important part of a banker's education is to learn whom to trust. This is undoubtedly true, but unfortunately many bank officers have no careful system of investigating the standing and credit of those who borrow from them. They simply rely upon the prestige of the concern, so to speak, or upon some vague idea or memory of the past goodness of the customer. Every bank should have a carefully organized and thoroughly equipped credit department, to determine the reputation and responsibility of its customers, and, as it is quite impossible for a bank officer to keep in mind the financial status of every firm and individual doing business with his institution, this department should have the custody of these records, besides keeping a check on the amounts and different classes of paper under discount.

There is a strong aversion on the part of some borrowers to having their affairs investigated, but any one wishing to borrow money from a bank should have the same feeling toward it that a merchant does who purchases goods from a wholesale dealer. The latter has a commodity to sell, but before shipping the goods he naturally requires a statement of the purchaser's condition, and any facts that will aid in arriving at a decision as to the line of credit to be granted. The banker, also, has a commodity to sell — for money is a commodity — and he should be doubly sure of the financial strength of the party to whom he is loaning or selling it, as the funds he advances do not belong to him, but to the bank's stockholders and depositors, and are held in trust by him; hence he should exercise the utmost care in ascertaining the credit worth of parties to whom he grants accommodation.

Borrowers who hesitate and refuse to give their banks a complete statement of their condition, take an unreasonable position, as, no matter how great their reputation for soundness and integrity may be, the bank cannot be expected to make a credit basis upon something that is, at

best, only indefinite and uncertain. I have always held that a bank is entitled to know the fullest details regarding its customers, if they come to it with their hats in their hands. This may be a homely way of putting it, but its meaning cannot be misunderstood.

Some houses consider themselves entitled to financial favors at the hands of their banks; but, if they are asked for particulars regarding their condition, they are at once disposed to resent inquiry, taking it as a piece of impertinence. Experience has shown that in ninety-five cases out of a hundred where borrowers take this stand, they are in a precarious condition and have something to conceal. Recent failures have confirmed my opinion of this matter, and I am more strongly convinced than ever that it is the part of wisdom in all such cases to accept the benefit of a doubt and decline the advances desired. Of course, it is possible that a concern of high standing will sometimes refuse to make a statement, and yet be entirely able to meet its obligations. Sooner or later, however, it will feel the desirability of having its bank entirely confident of its position.

Nerve is sometimes needed to carry into execution the suggestions I have offered; but time will convince the bank officer who adopts them that he has taken the right course, and the results will be equally gratifying to himself, and to the bank's directors and stockholders. If, in every case where credit is desired, a statement is obtained and thoroughly analyzed, as well as supplemented by a careful investigation in the trade as to the promptness and integrity of the parties making it, the banker has the assurance that he has done all within his power to protect his institution against imposition and fraud; and if, under these circumstances, he finds that his confidence has been misplaced, he has the satisfaction of knowing that he did his full duty.

The funds of a bank should be loaned on short time. There is a growing disposition in the mercantile community to sell goods on longer time and date bills further ahead, and this naturally leads merchants to ask for extended time on their paper; but if a banker complies with such requests, the maturities of his bank are seriously disarranged. If all bank officers would insist, as far as possible, upon shorter notes, the result would be beneficial to themselves and to the community, as it would produce a more healthful state of commercial affairs, and tend to curtail excessive credits on the part of the merchants. In some sections it is, of course, impossible to do business in this way, but in large cities and important money centers it can be done with but little inconvenience.

Another point which should be carefully considered is that of renewing paper. After a note has been renewed once, the bank should insist upon payment when due, and thus be allowed to see the color of its money. This may seem a hardship to those who, especially in small

country towns, borrow with the expectation of having the loans renewed year in and year out, they simply paying the interest; but it forcibly reminds them that their debts must be paid, and they will no longer regard them as trivial matters, which may be adjusted merely by an interest payment once or twice a year, as the case may be. I have good authority for the statement that at least sixty per cent. of the assets of many country banks consist of what may be said to be virtually past due paper, upon which the banks are obliged to accept renewals. This is certainly startling. No bank should treat its customers in such a way as to lead them to believe that it stands ready to furnish permanent capital for their business; and the payment of a note should be insisted upon, even if the borrower is allowed to have the money back within twenty-four hours.

I should like to emphasize the importance of having a bank treat all its customers alike, and upon a fair and equitable basis. A bank is conducted for the purpose of making money for its stockholders, and in loaning no favoritism should be shown. Besides its capital stock, it has the use of its customers' deposits; and the average balance of a customer's account is the proper basis upon which he should be treated, all other things, of course, being equal. The funds of many banks are monopolized by supplying the requirements of their directors or the wants of the friends of the officers; and it is often a cause for wonderment on their part why the bank is not more successful in its business operations. But if the depositors are treated in a fair, straightforward manner, and given the attention to which they are entitled, the bank will inevitably win its way into public favor and achieve success. People love fair play, and no one desires it more than the man who keeps his money in your bank, and he justly expects to be treated with the consideration which is accorded to others.

The reserve is another important feature. In addition to the cash reserve required by law, every bank should have a reserve, either in the shape of call loans or some other available assets, which can be quickly converted into cash. In determining of what this latter reserve should consist, and the amount to be carried, the location of the bank, and its business and customers, should be taken into consideration. Its quick asset reserve should, however, be a liberal one, as nothing yields so much prestige to a bank as to be able to respond promptly, if for any reason its depositors should find it necessary to withdraw a large amount of money in a short time.

The last point to which I shall direct your attention in regard to the business of a successful bank is the question of advertising. A prominent advertising agent says in a treatise which he has written on this subject: —

"The objects to be attained by advertising are to increase business, to procure additional trade, to win the attention of persons who have not acquired the habit of bestowing their custom at any fixed place, to secure the attention of the man who never did want anything in your line till now, and never expects to do so again, but is ready to go for it wherever he is told that it can be obtained on reasonable terms."

Therefore I am thoroughly convinced that a bank should judiciously advertise its business. In advancing this opinion I am no doubt running counter to a large number of conservative bankers who pride themselves upon the fact that, although their banks never advertise, they have a good business and consider it beneath their dignity to solicit an account. These gentlemen are sustained in their opinion by such a well-known financial writer as George Rae, who stated in the "Country Banker," that "banking is a business to which the process of pushing must be applied, if at all, with the utmost circumspection, and that you should rely upon your customers' good-will to bring fresh business to the bank without moving yourself in the matter." This may be true in old, settled communities like those in England, but in sections which develop as readily as those in the West, progress requires information, which can properly be imparted through the medium of advertising.

The question now arises: "What is the best way for a bank to advertise?" This, of course, depends largely upon the situation of the bank and upon its officers; but careful and judicious advertising through any medium which reaches the public has more to do with the prosperity of a bank than many men realize. A careful record should be kept of every letter soliciting an account, every circular mailed, every new account received, and all matters pertaining to new business, for it is only in this way that you can see the benefits of advertising. Tell the absolute truth in your statements and make them so plain that no question need be asked to ascertain the exact condition of your affairs.

My second topic is the bank's officers. The latter should be broad-minded men, thoroughly conversant with all classes of business. They should not give themselves up to narrow views or prejudices, but should endeavor to look upon business matters from an unbiased standpoint and to give careful, conservative, and, at the same time, quick judgment. Promptness of action is one of the most desirable qualities in a bank officer. If he shows any hesitancy about answering the questions that come before him from day to day, or if he be dilatory about passing upon the problems presented by customers or clerks, it at once creates a lack of confidence on the part of those coming in contact with him, and in many cases his judgment is doubted. A bank officer should always be courteous; there is no good reason why a person who is the custodian

of other people's money should exhibit a disposition that is overbearing and disagreeable.

Many bank officers expend a good part of their time in looking after detail work, which, if properly systematized, could be satisfactorily handled by others. An officer has the direction of the affairs of the institution—he is supposed to have certain capabilities that other men do not possess—to be able to handle and place men so that they will do the best work, and, in general, to be the governing power of the bank. An officer should be able to select from his force competent clerks to attend to comparatively unimportant matters which require research and time. This will relieve his shoulders of many burdens, keep his mind free for large matters, and enable him to grasp the reins of the whole bank and guide it to success.

The officers of a bank should work as a harmonious whole for the welfare of the institution. No bank can be truly successful when its officers are continually at loggerheads with one another, or when there is jealousy among them, and one tries to take advantage of another. They should have strong confidence in one another, and should remember the old but ever true adage: "In union there is strength."

One of the most essential qualities of a bank officer is executive ability. A story is told of an elderly lady whose daughter attended a fashionable boarding-school. At the beginning of her second year's course, the mother inquired of the principal how the young lady was progressing. She was informed that her daughter was doing nicely but that she lacked one thing—capacity. The old lady immediately took out her pocketbook, inquired the cost, and said she was prepared to pay for it. Executive ability, like capacity, cannot be purchased, but must be acquired by long study and hard work, and even then some men never seem to attain it. This should be one of the chief virtues of a bank officer, and is one which a board of directors should carefully consider when selecting him. The position of the bank officer is trying in more ways than one. He must know how to say no to a man who keeps a small account, when a five thousand dollar loan or discount is the object of his visit, and say it in such a way that it will leave no sting.

It would hardly be fair, after discussing the officers of a bank, to pass over the board of directors, which is an invaluable adjunct to every well-managed bank. The directors are the counselors of the officers, but they should not assume the responsibilities or duties of the officers. They may advise or direct concerning the general policy, but should leave details to the executive management, and before entering into any transaction for the bank, they should consult the officers and secure their approval.

They should be broad and liberal-minded men of high character and standing—men who command respect in the community. An ideal board of directors should be composed of leading men who are actively engaged in the different business interests of the community, so that when an offering for discount is received from any of the various branches of trade, there will be some member of the board who is able to pass upon it. By associating this class of men in your board, you are likely to bring to the bank customers from the entire community, and the bank will not be managed in the interests of a clique.

There is a feeling in some quarters that directors should not be borrowers from their own bank, and, in fact, they should keep their accounts elsewhere; but if a director does not ask any more than his account entitles him to receive, if he will comply with the conditions as regards security, and within the limitations of the National Bank act, and does not try to make better terms for himself than he would give to other customers in like circumstances, there is no reason why he should not be a borrower from the bank.

The third important feature of a bank is its employees. They must be, first and foremost, loyal to the bank and its officers. No institution should tolerate in its employ a man who is disloyal or who does not have its active interests at heart. They should learn this lesson when they first enter the institution. The employees should be men of good education. Some institutions are giving preference more and more to young men who have graduated from business colleges, as they have proved to be more competent to take up the general work of the bank. One of the best recommendations a young man can have to-day in applying for a position in a bank is a diploma from a good business college.

The employees of a bank sometimes demur against what they call espionage upon their private conduct, saying that it is very humiliating to be suspected of wrong-doing. Some one has said: "Watchfulness is not synonymous with suspicion." With a man's politics or religion, a bank should not interfere; but no possible check should be omitted upon any officer or employee, and all honest men should court these checks as good business methods. An employee of a bank, by reason of the position of trust involved, should keep his private life above suspicion. The least tendency to dissipation or fast life should work his discharge. This sort of life has been the foundation of more than one-half of all the defalcations in banks. Neither should an employee ever permit himself to be open to the temptation incident to speculation of any sort.

A bank, on the other hand, has its duty to perform toward its employees. It should treat them fairly and justly in the matter of salary, not overwork them, and give them a reasonable vacation period. A

fair compensation for service rendered should be the spirit that governs all institutions in regulating the salaries of employees.

No bank can be thoroughly successful without the hearty coöperation of those in its employ; and, as an efficient and loyal service is indispensable to good management, the officers of a bank should advance its prosperity by securing the very best service that can be obtained. They should recognize that if the work of a bank has been well done, this result has not been achieved by the officers alone, but through the well-directed efforts of all—that each clerk contributes his share in handling the business of the bank and is entitled to credit therefor. Every bank should have a system of promotion, and matters pertaining to the welfare of the employees should receive careful attention. No bank should ever go outside of its own working force for a man to fill an advanced position, if it has in its ranks a man capable of discharging the duties of that office.

Fourth, the bank's machinery must be considered. Here we come to a point where a whole day could be spent in considering different plans. By machinery, I refer more particularly to the internal working of a bank. Experience has taught me that the machinery of a bank should be as simple as possible, free from all complications, so that a person of ordinary intelligence could go into the bank and understand its book-keeping. Every improvement that will save time and labor should be introduced.

Careful statistics of the various transactions of the bank should be gathered, and the general summary of its condition, as it comes to the officers, should be so plain that he who runs may read. The stationery should be a distinctive feature of the institution—neat, plain, without flourishes, and business-like. I do not believe in fancy letter-headings or envelopes. The machinery should be well oiled by employing plenty of help. Short help should be the last economy practised in a bank. Large institutions should employ at least one or two extra men to fill up any gap that may be occasioned by illness, so that the business may not become congested by reason of the absence of two or three clerks.

I cannot close these remarks without referring to the position a bank should take with regard to its neighbors and competitors. There should be a community of interest between banks, not only in large cities, but throughout the country. "No man liveth to himself," and we all need the help and coöperation of our neighbors. There should be a stronger bond of fellowship between banks, and in this way, if in no other, we can avoid some of the large losses which come upon us from time to time.

There is business for all, and every bank officer should face the matter of honest competition fairly and squarely, and try by all the means

in his power to keep his bank in a healthy condition. I look forward to the time when all the state banking associations in the United States will be joined in some union that will make them of still greater service to their members, as well as to our beloved country.

BANKRUPT.—One who fails or cannot pay his just debts.

BANKRUPTCY has a dual meaning; it is a state of inability to pay all debts, and the word also designates the process by which an individual or a corporation may obtain a discharge of his or its indebtedness, by surrendering his or its property and otherwise complying with the law. A bankruptcy law enacted by Congress in 1800 was repealed in 1803. In 1837 a commercial crisis in this country resulted in failures to the extent of about \$100,000,000. In consequence of the panic that ensued, Congress passed another bankruptcy act in 1841, but repealed it in 1843. Most of the banks suspended specie payment in 1857, during the financial panic. The Lowell act, passed in 1867, was in force until 1878. The existing law dates from 1898. During the intervals when there was no national bankruptcy law, all matters pertaining to insolvencies were under the control of the states.

BANKRUPT LAW.—A law under which a man surrenders all his property to assignees for the benefit of his creditors, and receives a discharge from all indebtedness and freedom from liability against future acquired property.

BANKS.—A bank is an institution for receiving, holding, and lending money, and, when a national bank, for the issue of money. The banking institutions of this country are national, state, private, savings, and loan and trust companies. In 1780 the Continental Congress granted a charter to the Bank of North America. Doubt arose as to the power of that body to perform this act, and the bank was rechartered by Pa. in 1781. By 1791 two other banks, one in Boston and one in New York, had been founded. In that year Congress established the Bank of the U. S., which had an authorized existence of 20 years and a capital of \$10,000,000, one-fifth to be supplied by the Federal Government. In 1811 Congress declined to recharter the bank, and the country had no other than state banks until, in 1816, the Second U. S. Bank was established to run 20 years, with a capital of \$35,000,000, of which \$28,000,000 was represented by government stocks. It had 25 directors, of whom five were appointed by the U. S. This bank was the custodian of the public funds, and the veto by President Jackson of the act renewing its charter was made an issue

in the presidential campaign of 1832. After the election, the national funds were removed from the bank and deposited in state banks, which emitted bills indifferently secured and of various denominations. This system worked so disastrously to the commercial interests of the country that a national bank act, suggested by Secretary Chase, was passed in 1863 and amended in 1864. It is modeled on the old New York State banking law, by which the circulating notes of all the banks of that state were secured by stocks and bonds, one-half of which had to be securities of the state itself. Under the existing national banking law, any five persons with a total capital of \$50,000 are empowered to open a bank and issue circulating notes to the amount of 90 per cent. of their capital invested in U. S. bonds, but not to exceed 90 per cent. of the par value of those bonds. In cities of more than 6,000 population, the minimum capital is \$100,000 and where the population is more than 50,000, double that amount. The same ratio of circulating medium to capital is maintained everywhere. The existing law has added some \$350,000,000 to the currency.

BANKS, POSTAL SAVINGS.—Originated in England, where they were established in 1861. The system was not general at first, but it was eventually extended to all the money-order offices in the kingdom. The depositor is given a pass-book, in which his deposit is credited, whereupon the postmaster-general is notified of the transaction by the official and immediate receiver of the money, and the deposit is acknowledged by the department. The government, which is responsible for all money received, invests the latter in national funds and the depositors are in every conceivable way secured against loss. So elastic is the system that the depositor may apply for repayment at any post office in the kingdom and may direct that payment be made to him there or at any other postal savings bank. His order is sent to the postmaster-general, from whom he receives a warrant on the office named. When he presents this, with his pass-book, the money is paid. Deposits may range from one shilling to £50 in one year, but the total, including interest, which is $2\frac{1}{2}$ per cent., must never exceed £200. The system is especially adapted to the needs of people who are remote from any regular savings institution, and it has found favor in continental countries. Several postmasters-general, endorsed by the Presidents, have urged its adoption in the U. S., and bills to that end have been repeatedly introduced. The system is growing in public favor and there is little doubt that something of its kind will be established in the United States in the near future.

BARRATRY.—Cheating or fraud on the part of a ship master against the owners or insurers of a vessel.

BILL.—An account of goods sold or delivered, or for work done, with items, price, and dates.

BILL CLERK.—One who makes out the bills of goods sold.

BILL OF ENTRY.—A written account of goods entered the custom house for importation or for exportation.

BILL OF EXCHANGE.—An order, drawn on a person in a distant place, requesting the payment of a sum of money to another person or his order.

BILL OF HEALTH.—A certificate from the health authorities that a ship's company is in good health on leaving port.

BILL OF LADING.—An account of goods shipped and an acknowledgment of their receipt and promise to forward safely made by the agent of the transportation company.

BILL OF PARCELS.—A bill accompanying a sale of goods fully itemized.

BILL OF RIGHT.—A form of entry at the custom house which provides for a provisional landing of goods pending further information.

BILL OF SALE.—A writing which conveys personal property to another for a consideration. It corresponds to a deed of real estate.

BILLS PAYABLE.—Promissory notes or drafts held against a firm by other parties.

BILLS RECEIVABLE.—Promissory notes or drafts due to an individual or firm from others.

BOND.—A written obligation to pay a debt or to faithfully perform some duty. A mortgage as an additional security usually accompanies a bond. The penalty attached to a bond is usually twice the sum for which one is bound. Witnesses and formal acknowledgment are necessary.

BONDED WAREHOUSE.—A government warehouse for storing goods until duties are paid.

BONUS.—A premium paid for a loan, charter, or privilege.

BOOK-KEEPING.—

Book-keeping is the art of recording business transactions in a systematic manner, so that a proprietor may know the true state of his business and property at any time.

The same system is not used by all business houses, but the difference is only in *form*, not in the principles employed. If these principles are once learned, a set of books can be kept in whatever enterprise the book-keeper may obtain employment.

There are two methods of book-keeping in general use, termed *Single Entry* and *Double Entry*. In single entry book-keeping only personal accounts are kept in the ledger. In double entry book-keeping, accounts are kept in the ledger with things as well as persons.

SINGLE ENTRY.—The books to be used depend much upon the character and extent of the business. Those usually employed are Cash Book, Bill Book, Journal and Ledger. Other books, such as Sales Book, Order Book, Shipping Book, etc., are sometimes used.

The *Cash Book* contains the receipts and payments of cash. The difference between the sum of the receipts of cash and the sum of the payments of cash will show at any time the amount of cash on hand.

The *Bill Book* contains a record of all written obligations issued by the proprietor to others, and of those in his possession made by others. Such obligations in favor of the proprietor are called *Bills Receivable*, and those made by him in favor of others are called *Bills Payable*.

The *Journal* contains all debits and credits to persons growing out of transactions with such persons. An explanation of each transaction should be made, so that anyone may understand all important facts regarding them.

A clear and complete history of every transaction should be kept, and the book formerly used for this purpose is called a *Day Book*, or *Blotter*, though the Journal is now generally used instead.

The *Ledger* is the account book. In it the debits and credits are called *Accounts*, and the grouping of these is called *Posting*.

Debit, abbreviated Dr., shows either that the person after whose name it is entered has become indebted to the proprietor, or that the proprietor has got out of his debt, in part or in whole.

Credit, abbreviated Cr., shows that the proprietor has become indebted to the person after whose name it is entered, or that such person has got out of the proprietor's debt, in part or in whole.

A *Resource* is any kind of property belonging to the business; as, bills receivable, an account owing to the proprietor, cash on hand or in bank, real estate, stocks, bonds, mortgages, stock, furniture, fixtures, unpaid interest, etc.

A *Liability* is a debt of any kind owing by the proprietor as an outstanding note or a debt due to another person.

Investment, as used in book-keeping, means the capital put into the business. It may be cash, property, real estate, amounts due from others; in short, anything of value.

The *Present Worth* of the proprietor is the net amount of his interest in the business at any stated time. To ascertain present worth,

find the difference between the resources and the liabilities. If the resources exceed the liabilities, the difference shows that the proprietor has property in the business to that amount. If the liabilities exceed the resources, the business is *insolvent*; that is, there is not sufficient property in the business to pay its debts.

Net Gain is the excess of present worth over the investment.

Net loss is the excess of investment over present worth.

The term *Cash* is applied to specie, government bills, bank bills, bank checks, sight drafts, postal notes, money orders, and all other paper that is payable on demand.

In keeping books by single entry, the following rules for debit and credit should be observed:—

The *Proprietor* is *credited* with the sum of his resources at beginning of business; with subsequent investments; and with his net gain, if any, when books are closed.

The *Proprietor* is *debited* with the sum of his liabilities at beginning of business; with sums he draws from the business; and with his net loss, if any, when the books are closed.

Others are *debited* in the Journal when they get into the proprietor's debt; and when the proprietor gets out of their debt, partly or wholly.

Others are *credited* in the Journal when the proprietor gets into their debt; and when they get out of his debt, partly or wholly.

Cash is *debited* in the Cash Book when it is received into the business from any source.

Cash is *credited* in the Cash Book when it is paid out, for whatever purpose.

Bills Receivable are entered in the Bill Book as soon as received, together with the date of the note or acceptance, the date on which it will fall due, the name of the party who will pay it, name of endorser, if any, name of the place where payable, and the amount. When paid, this fact is indicated in the proper place.

Bills Payable are entered in the Bill Book with date of issue, date of maturity, name of the payee, where payable, and amount; when paid, entry of that fact is made in the proper column.

THE CASH BOOK.—There are two methods of making entries in the Cash Book. One is to have its pages ruled for two sets of figures, the left-hand column being used for receipts of cash, and the right-hand column for payments of cash. The other method, which is safer and more commonly used, is pursued by using the opposite pages, the left-hand page being used in place of the left-hand column in the first method and the right-hand page being used in place of the right-hand column.

Suppose the following transactions to have been made:—

January, 1901.

1. Commenced business this day, investing as capital \$1,000 cash.
 2. Bought iron safe for which I paid cash, \$100.
 3. Bought 20 barrels of flour at \$4 per bbl., for which I paid cash, \$80.
 4. Bought a horse and wagon for which I paid cash, \$100 and \$75 respectively.
 5. Sold, for cash, 4 barrels of flour at \$7 per bbl., \$28.
 6. Sold, for cash, 2 barrels of flour at \$7 per bbl., \$14.
 7. Bought, for cash, 100 bushels of oats at 50 cents per bushel, \$50.
 8. Sold, for cash, 25 bushels of oats at 60 cents per bushel, \$15.
 9. Bought, for cash, 200 pounds of Java coffee at 20 cents per pound, \$40.
 10. Bought, for cash, 50 pounds of Oolong tea at 50 cents per pound, \$25.
 11. Sold, for cash, 10 pounds of coffee at 30 cents per pound, \$3.
- The Cash Book entries covering these transactions should be made as shown by Diagram No. 1.

DIAGRAM NO. 1 — CASH BOOK

January, 1901							
1	Investment		\$1000	2	Safe		\$100
5	4 bbls. flour	\$7	28	3	20 bbls. flour	\$4	80
6	2 bbls. flour	\$7	14	4	Horse		100
8	25 bushels oats	.60	15	4	Wagon		75
11	10 lbs. coffee	.30	3	7	100 bushels oats	.50	50
				9	200 lbs. Java coffee	.20	40
				10	50 lbs. Oolong tea	.50	25

The entries for the remainder of the month of January should be made in a similar manner, when the month of February should be started.

To balance the Cash Book, add the amounts on the left-hand, or debit, side of it, and enter the total as shown in the illustration. Do the same with the right-hand, or credit, side. If there be an excess of received cash over cash paid out, it will represent the balance on hand, which amount should be entered below the total of the entries on the credit side and a total entered at the bottom of the page, which total will obviously balance the total on the debit side.

It is customary to balance, or *close*, the Cash Book at the end of each day, carrying the balance to the following day.

THE JOURNAL.—The journal, as previously stated, contains all debits and credits to persons arising from transactions with such persons, with clear explanations of such transactions.

The following transactions are represented by the Journal entries shown by Diagram No. 2:—

January, 1901.

1. Commenced business this day with a cash capital of \$1,000.
2. Bought of John Smallwood, on account, at 10 days, 50 barrels of flour at \$5, \$250.
3. Sold Henry J. Miller, on account, at 5 days, 10 barrels of flour at \$6, \$60.
4. Bought of S. M. Smith, on account, at thirty days, 40 pounds of coffee at 20 cents, \$8; and 40 pounds of tea at 50 cents, \$20.
8. Credit Henry J. Miller, cash, \$60.

DIAGRAM NO. 2.—JOURNAL

January, 1901.				
1.				
Proprietor	Cr.			\$1000
Investment.				
2.				
John Smallwood	Cr.			
50 bbls. flour at	\$5			250
3.				
Henry J. Miller	Dr.			
10 bbls. flour at	\$6			60
4.				
S. M. Smith	Cr.			
40 lbs. coffee at	.20	8		
40 lbs. tea at	.50	20		28
8.				
Henry J. Miller	Cr.			
Cash in full of a/c				60

THE LEDGER.—Posting the Ledger is performed by carrying to that book all of the debits and credits to persons that are contained in the Journal, opening an account with each of such persons by placing the amounts for which he is debited in the left-hand, Dr., side of his account, and the amounts for which he is credited on the right-hand, or Cr., side.

The proprietor's name is usually the first that appears in the Journal, hence his account is naturally the first to be opened in the Ledger. Whenever an entry is made in the Ledger the page on which such entry is made in the Journal is shown also, and, similarly, an entry of the Ledger page is made opposite the corresponding entry in the Journal. These figures operate as a check, showing that the entry in the Journal has been posted to the Ledger. *Always check each entry.*

The entries shown on the sample leaf of the Journal (Diagram No. 2) should appear then, under their proper dates in the Ledger as shown by Diagram No. 3.

DIAGRAM NO. 3.—LEDGER

1901			Journal Page	PROPRIETOR	1901			Journal Page	
Jan.	3	Mdse.	1	John Smallwood	Jan.	1	Investment	1	\$1,000
				Henry J. Miller		2	Mdse.	1	250
				60		8	Bal. of acct.	1	60
				S. M. Smith		4	Mdse.	1	28

NOTE.—Enter only two accounts on each page of the Ledger, one occupying the upper half, and one occupying the lower half.

When an account in the Ledger is made to balance by a payment, it should be ruled and footed at once. See ledger account of Henry J. Miller.

From the rules and examples given the student should now be able to know immediately in what book or books every transaction should be entered. Suppose a record of the business to have been kept in the manner indicated up to February 1, 1901, and that on that date the proprietor desired to know the results of his business operations. As previously stated, the present worth may be ascertained by finding the difference between the amount of resources and the amount of liabilities, and the net gain or net loss may be ascertained by finding the difference between the investment and the present worth. To find the exact results, therefore, the following directions should be carefully observed:—

First, make an inventory of all stock and property on hand, estimating the stock at cost unless there has been a material change in its value since it was purchased. To this result add the amount of

cash in hand which is obtained by deducting from the amount of cash received, as shown by the debit side of the Cash Book, the amount paid as shown by the credit side of it. To this second total add the net amount of personal accounts in the proprietor's favor. These items constitute the resources of the business.

Next, find the total liabilities of the business which are made up of the personal accounts which the proprietor has to pay. The difference between the resources and liabilities will be the present worth of the proprietor's business, and the net gain or net loss will, as stated, be the difference between the present worth and the original investment. This is called a "Statement of Resources and Liabilities." It is customary to make a statement of this kind semi-annually or annually. The period of one month here given is only for the purpose of illustration.

When the proprietor keeps accounts at a bank, a Bank Account should be kept which will be the same as a personal account. Debit the bank with all deposits made and credit it with all checks drawn. There is, however, no necessity of keeping a Ledger account with the bank, as the record of the currency and checks on hand, and the cash in the bank, may all be kept in the Cash Book as though it were all currency. This last observation presupposes a record of checks to be kept in the Cash Book, which is always done.

DOUBLE ENTRY.—As before stated, in double entry book-keeping, accounts are kept in the Ledger with things as well as persons. Every kind of property belonging to the business is represented by some account in the Ledger, and every obligation due the proprietor, as well as his obligations to others, is represented by some account.

The books usually employed are *Cash Book*, *Journal*, *Ledger*, and *Bill Book*. Sometimes a *Day Book*, *Sales Book*, and *Invoice Book* are used. Whether the latter books should be used depends upon the nature and extent of the business. The Day Book is seldom used, the entries being made with full explanations in the Cash Book, Journal, and Sales Book.

The Cash Book, Journal, Ledger, and Bill Book have already been described in connection with the single entry method. The Sales Book is designed to contain a record of all sales of merchandise. The Invoice Book is for the purpose of keeping a record of all purchases of merchandise.

In keeping books by double entry, the following rules of debit and credit should be observed:—

The *Proprietor* is *credited* with the sum of his resources at the beginning of business; with subsequent investments in the business; and with his net gain, if any, when the books are closed.

The *Proprietor* is *debited* with the sum of his liabilities, at the beginning of business; with such sums as he may draw out of the business from time to time; and with his net loss, if any, when the books are closed.

Persons are *debited* when they become indebted to the proprietor; and when the proprietor gets out of their debt, in whole or in part.

Persons are *credited* when the proprietor gets into their debt; and when they get out of the proprietor's debt, in whole or in part.

Cash is *debited* when it is received into the business from any source.

Cash is *credited* when it is paid out for any purpose.

Bills Receivable are *debited* with all negotiable written obligations of other persons when they are received.

Bills Receivable are *credited* with all negotiable written obligations of other persons when they are paid or otherwise disposed of.

Bills Payable are *credited* with all negotiable written obligations of the proprietor when issued.

Bills Payable are *debited* with all negotiable written obligations of the proprietor when they are paid or otherwise canceled.

Merchandise is *debited* with the cost of all merchandise purchased.

Merchandise is *credited* with the proceeds of all sales of merchandise.

Expense is *debited* with all expenses of the business; as, clerk hire, fuel, light, feed, and miscellaneous expenses.

Expense is *credited* when anything of value is disposed of, which was previously debited to expense.

Interest is *debited* when interest or discount is allowed to others.

Interest is *credited* when interest or discount is allowed to the proprietor.

Suppose a business to have been started on January 1, 1901, and transactions to have been made during the first few days of the month as follows:—

January, 1901.

1. Commenced business this day with a cash capital of \$3,000.
2. Bought a horse and wagon for use of the business for which I paid cash, \$200.
3. Bought of John Simms, for cash, 100 bbls. of flour at \$5, \$500.
4. Bought of Chas. Smith, on account, at 30 days, 100 pounds of coffee at 20 cents, \$20.
5. Sold to J. R. Smallwood, for cash, 5 bbls. of flour at \$6, \$30.
6. Sold to J. T. Anderson, on account, at 30 days, 10 pounds of coffee at 30 cents, \$3.

Such transactions should be shown in the Journal as indicated by Diagram No. 5.

DIAGRAM NO. 5.— JOURNAL (DOUBLE ENTRY)

January 1, 1901					
Commenced a general produce business with a cash capital of \$3000.					
Cash	Investment	\$3000			
To Proprietor				\$3000	
2.					
Expense	Horse & Wagon	200			
To Cash				200	
3.					
Mdse.	100 bbls. flour at \$5	500			
To Cash	bought of John Simms			500	
4.					
Mdse.	100 lbs. coffee at .20	20			
To Chas. Smith at 30 days				20	
5.					
Cash	5 bbls. flour at \$6	30			
To Mdse.	Sold J. R. Smallwood			30	
6.					
J. T. Anderson	10 lbs. coffee at .30	3			
To Mdse.	at 30 days			3	

From the rules for debit and credit above given it will be seen that instead of only one posting being required for each Journal entry, as in the Single Entry method, two postings are necessary in every case, and sometimes three. Thus, in posting Journal entry No. 2, Expense is debited \$200 and Cash credited with the same amount. Suppose the history of a transaction to be that on Jan. 21, 1901, John Steady proposes to pay his note of \$157.50, due Feb. 8, providing the proprietor will allow him discount (amounting to 47 cents) on the amount for the time the note has yet to run; which proposition is accepted: Cash should be debited, Bills Receivable \$157.03; Interest should be debited, Bills Receivable \$.47; and Bills Receivable should be credited, Sundries \$157.50. *Sundries* here means two debits, thus saving the entry of one credit in the Bills Receivable Account.

The Ledger entries covering the Journal entries in Diagram No. 4, would, therefore, appear as in Diagram No. 5. In observing Diagrams Nos. 4 and 5 reference should be made to the rules for debit

and credit, so that the student may see which one is applicable in each case.

DIAGRAM NO. 6.—LEDGER (DOUBLE ENTRY)

1901			Journal Page	PROPRIETOR	1901			Journal Page	
Jan.	1	Proprietor	1	Cash	Jan.	1		1	\$1,000
				\$1,000		2	Expense	1	200
	5	Mdse.	1	30		3	Mdse.	1	500
				Expense					
	2	Cash	1	200					
				Mdse.					
	3	Cash	1	500		5	Cash		30
	4	Chas. Smith	1	20		6	J. T. White & Co.	1	3
				Chas. Smith					
				J. T. Anderson		4	Mdse.	1	20
	6	Mdse.	1	3					

NOTE.—Enter only two accounts on each page of the Ledger, one occupying the upper half and one occupying the lower half.

The Cash Book does not differ from that in Single Entry.

THE TRIAL BALANCE

The *Trial Balance* is a test employed to determine whether the Ledger is in balance, or whether the sum of all the debits is equal to the sum of all the credits. Add your Ledger accounts, making the totals with lead pencil so that they may be erased after they have served their purpose. Transfer to your Trial Balance book from the Ledger the names and footings of the accounts in which the footing of the debit column is not equal to the footing of the credit column, placing the debit footings in the left-hand column and the credit footings in the right-hand column. Add each column, and if their footings are the same your Ledger is in balance. If the footings do not agree, there is an error somewhere, which must be located. To do this the following rules will be found effective:—

1. Make sure that the columns of the trial balance are correctly added.
2. Test the footings of the accounts in the Ledger.
3. Find out whether the footings are transferred correctly to the balance sheet.
4. Add the columns of the Journal to see if the Journal is in balance.

5. Examine each Journal entry by itself, and also the posting of it, checking both the Journal and the Ledger with a mark (✓).

6. Look through the Ledger for unchecked entries, and when one is found search for the cause of its appearance.

It will not, perhaps, be necessary to resort to all these rules; but until the error is located the foregoing should be applied in the order given.

The net gain or net loss of the business may be ascertained by exactly the same process as in Single Entry. This operation may be proved by making a statement of resources and liabilities which is also done as in Single Entry.

CHANGING FROM SINGLE ENTRY TO DOUBLE ENTRY.—In order to change from Single to Double Entry it is necessary to open an account for every resource and liability, except those connected with personal accounts, these being already represented. The balances representing these resources and liabilities should be entered on the proper side in these new accounts, and the net gain or net loss transferred to the proprietor's account, after which, if the work be correct, the Ledger will be in balance.

It is customary to *close* the Ledger, but it is not really necessary to do so, as the balances can all be found without closing the books. Of course they must be closed, if a new set of books is to be used after the change.

Petty Cash Book.—In this book are entered the small sums of cash received or paid out. At the close of each day it is balanced, and the amount representing the difference between the Dr. and the Cr. sides is transferred to the main Cash Book. The object of this is to save space in the main book.

Petty Ledger.—When persons are not likely to do much business on credit, it will be found convenient to open accounts with them in this book. Care must be taken, however, not to open two accounts, one in the Ledger and one in the Petty Ledger, with any person, as confusion would result. The indexing, therefore, should be promptly attended to.

Sundry Debtors' Account.—This account is sometimes kept when transactions are had with persons who are likely to purchase but little. The object of it is to save space in the Ledger. If such persons buy on credit oftener than once, an account should be opened with them in the regular way, and their entry in the Sundry Debtors' Account should be closed into the new account.

TRANSFERRING ACCOUNTS FROM AN OLD LEDGER TO A NEW ONE

When a Ledger is filled and it becomes necessary to transfer the accounts from it to a new one, the following course should be adopted:—

1. See that the old Ledger is in balance.
2. Mark the old one "Ledger A," and the new one, "Ledger B."
3. Close the first account in Ledger A "By (or To) Balance to Ledger B," making the entry in red ink.
4. Open a new account in Ledger B, having the same heading as the one just closed, and make the entry "To (or By) Balance from Ledger A" in black ink.
5. Index the account as soon as opened, and indicate in each Ledger the page of the other on which it appears.
6. Treat all the accounts in a similar manner.

INFORMATION NECESSARY FOR INTELLIGENT BOOK-KEEPING

Bank Checks.—A check is an order for money, drawn by one who has funds in the bank, payable on demand. It is practically the same as a sight draft. Exercise the utmost care in drawing checks and all forms of commercial paper. A carelessly drawn check may be *raised*, that is, it may be made to read for a larger amount than that for which it was originally drawn, by a dishonest holder. The bank cannot be held responsible for carelessness of this character.

Identification.—It is the rule in this country not to cash a check that is drawn payable to order unless the person presenting the check is known at the bank. It should be remembered, however, that a check drawn to order and then endorsed in blank by the payee, is really payable to bearer, and all that is necessary in order to get it cashed is that the bank be satisfied of the genuineness of the endorsement.

When checks are to be deposited, the words "For Deposit" should be written above the endorsement. When so endorsed, the bank will refuse to cash them, which operates as a safeguard in case they are lost or stolen.

In drawing money from the business account for use in the business, the check should be written "Pay to the order of Cash." This differs from a check drawn to "Bearer." The paying teller will not then cash the check unless presented by the proprietor or some one well known as the latter's representative. If the check is drawn payable to the proprietor he will be required to endorse it before it will be cashed.

If you wish to draw a check to pay a note, write "Pay to the order of Bills Payable"; if for money for wages, write "Pay to the order of Pay Roll"; if to pay for a draft which you are buying, write "Pay to the order of N. Y. Draft and Exchange"; or whatever the circumstances may call for.

If it is desired to stop the payment of a check which has been issued, notify the bank at once, giving a full description of the check.

Checks should be numbered so that each can be readily accounted for. It is important that the check book be correctly kept, so that the exact amount of money in the bank may be ascertained at any time.

Bank Drafts.—A bank draft is the bank's check, drawing on its deposit with some other bank. Banks sell these drafts to their customers. Merchants make frequent use of them in making remittances from one part of the country to another. They pass as cash anywhere within a reasonable distance from the money center upon which they are drawn.

A draft on a foreign bank is usually called a *Bill of Exchange*. They are, as a rule, drawn in duplicate, one of which is forwarded and the other retained, and are so worded that when the original is paid the duplicate becomes void.

Promissory Notes.—A promissory note is a written promise to pay a certain sum of money. At the time of making the note there are two parties: the maker and the payee. The maker is the person who signs the note, and the payee is the person to whom, or to whose order, the note is made payable. Negotiable means *transferable*, and, therefore, a negotiable note is one that can be transferred from one person to another. To be negotiable, a note must contain the word *order* or the word *bearer*, that is, it must be made payable to bearer or to the order of the payee. A non-negotiable note is payable to a particular person only; but notes of this character are not frequently accepted for the reason that they possess none of the attributes of currency, differing in this respect from negotiable paper.

The date of a note is a very important item, and great care should be exercised in writing it. A note made on Sunday is generally considered void, but this is not strictly correct. If made and issued on Sunday it is void, but if made on Sunday and issued on any other day, it is legal. "Issue" means delivery.

The words "value received" are usually inserted in a note but they are not legally necessary. A promise to pay anything but money is not a note; it is simply a form of contract.

A note does not draw interest until after maturity unless the words *with interest* appear on its face. After maturity it draws interest at the legal rate until paid.

An endorser of a note is any person who writes his name on the back of it, thereby guaranteeing its payment. Notes are usually endorsed in blank, which leaves the receiver free to endorse it or not

at his pleasure if he wishes to transfer it. The endorser is liable for its payment if the maker fails to meet it. If the endorser desires to escape this liability he should write above his signature the words "*without recourse.*"

A note should be presented for payment on the exact date of maturity and at the bank or place where it is made payable. In finding the date of maturity, remember that when a note is drawn payable *so many days after date*, the actual number of days must be counted; and when drawn payable *so many months after date*, the time is reckoned in calendar months.

If a payment is made on a note, such payment should be endorsed on the back of the note, with the date. It is unnecessary to affix any signature to the entry.

Drafts.— It is quite a common practice to collect debts by draft. When the messenger from a bank presents a sight draft he is not authorized to accept a check in payment, but the person upon whom the draft is drawn may, if he chooses, write across the face of the draft, "Accepted June —, 190—, payable at Second National Bank," and sign his name. Such a draft is then practically converted into a check, and the particulars must be entered in the check book in the same manner as if an actual check had been issued.

Discounting.— It sometimes happens that drafts are discounted before they are accepted. If a merchant has accounts out and desires immediate capital, he draws on his customers and sells his drafts to a bank, either directly or through a broker.

Notes may be discounted as well as drafts. The rates of discount vary according to the paper offered and the state of the money market. The rates usually run from 4 to 8 per cent. per annum.

Having made your statement of liabilities and resources, you should now make your Ledger show the proprietor's real present interest in the business. In the proprietor's account, place on the credit side, in black ink, the net gain. If there has been a loss the amount of such loss should, by force of the rules for debit and credit, be shown on the debit side. The date on which you close the account should be shown opposite such entries. The difference between the sides of your account will now show the proprietor's present worth, as shown by your statement of resources and liabilities. On the opposite side of the account you will now write in red ink the date of closing and "Present Worth, \$——," and foot up both sides of the account. Under these footings rule two lines in red ink, next transfer the amount of "Present Worth" to the credit side of the account in black ink, dating the entry the day after that on which you close the account, as that amount will be your capital at the

commencement of the new account. Your Ledger will then show the proprietor's interest in the business.

The Ledger should now be "closed" by finding the difference between the two sides of each account in that book. Add each difference to the smaller side of the account, showing the date of closing.

"To Balance," foot up both sides of the account. The totals will, of course, agree. Make the entries, rulings, and footings in red ink.

To open the proprietor's new account in the Ledger, bring forward the amount of "Present Worth" as "Investment." The date of this entry will be the day on which the new account is commenced.

To open the other accounts, bring forward the balance in black ink, entering them as "Balance" under the date of the new account on the proper side of the page.

Let us now proceed to close the Ledger account. Make the Ledger account as indicated by Diagram No. 3, show the proprietor's present worth and close the Ledger accounts preparatory to the commencement of a new set of accounts.

Suppose it to have been ascertained that the present worth is \$1,050 00, and the net gain \$50.00. The closed Ledger should appear as in Diagram No. 4:—

DIAGRAM NO. 4—CLOSED LEDGER

1901				PROPRIETOR	1901			
Jan.	12	Present Worth		\$1050	Jan.	1	Investment	I \$1000
				1050	Jan.	12	Net Gain	50
				John Smallwood				1050
Jan.	12	By Balance		250	Jan.	13	Present Worth	1050
				Henry J. Miller		2	Mdse.	I 250
Jan.	3	Mdse.	I	60		8	Bal. of Acct.	I 60
				S. M. Smith				
Jan.	12	By Balance		28		4	Mdse.	I 28

To close the Double Entry Ledger, first, enter the amount of the inventory on the credit side of the merchandise account as "Inventory," showing the date of closing in red ink. Next, find the difference between the two sides of the account, entering the amount of each difference also in red ink, on the smaller side of the account as "Loss" or "Gain."

If the total of the credit side be larger than the debit side, the difference will obviously be a gain. If the total of the debit side

exceeds that of the credit side, the difference will be a loss. Now foot up both sides of the account, making the rulings and figures in red ink.

Second, open an account with "Loss and Gain" one-fourth of a page below the Interest account. Transfer to the Loss and Gain account in black ink the amount of loss or gain, as shown in the Merchandise account with date of closing, placing the amount on the proper side of the account, *i. e.*, to the debit side if a loss; to the credit side if a gain.

Third, refer to the Interest account and ascertain whether it shows loss or gain, and how much, by comparing the totals of the two sides of the account. Balance the account by entering on the smaller side in red ink this difference, showing it "Loss" or "Gain," as the case may be. Now transfer in red ink the loss or gain, as shown by the interest account, to the proper side of the Loss and Gain account, showing it as "Interest."

The Loss and Gain account now contains all of the items of gain and loss, and it may now be closed. To do this, compare the totals of both sides of it, and placing the difference on the smaller side in red ink, as "Proprietor." If the debit side exceeds that of the credit, the difference is loss; if the credit exceeds the debit side, the difference is gain. Now rule and foot up the account in red ink.

Fourth, transfer the amount shown by the Loss and Gain account as "Proprietor" in black ink to the proprietor's account, debit if loss, credit if gain.

Fifth, close the proprietor's account. To do this, enter in red ink the amount of "Present Worth," excess of resources over liabilities and the amount of the loss or gain in his account, and bring down the totals of both sides in red ink. Enter in black ink the amount of "Present Worth" below the red ink footings on the credit side, showing the date as that on which you are to start the new account.

Sixth, close the other accounts in the Ledger the same as in single entries. This completes the closing of the Ledger.

Supposing the present worth to be \$2,012.50, net gain \$1,812.50, inventory \$1,499.50, interest, loss \$50.00. The closed Ledger page should appear in Diagram No. 7.

To open the new Ledger, bring forward in black ink the entries in all of the accounts in the old Ledger, except the "Loss and Gain" account. Date the entries in the new Ledger the day on which the new account is opened.

To ascertain the amount of discount on a time draft, first find its present worth. To do this, it is only necessary to divide the face

value of the draft by the amount of \$1 at the given rate and time. The difference between the present worth and the face of the draft will be the discount.

Thus, if a draft for \$750.00, due in 4 months, is discounted at the rate of 6%, the amount of the discount will be: \$750.00 divided by \$1.02 (\$1.00 and interest at 6% for 4 mos.) = \$735.29 (present worth). $\$750.00 - \$735.29 = \$14.71$ or the amount of discount.

This is called true discount, but the custom among business men is to use what is called "Business discount," that is, simply the interest on the face of the draft taken in advance. Thus, if a draft for \$106.00, due in one year, is discounted when money is worth 6% per annum, the discount will be 6% of \$106.00 = \$6.36, which deducted from the face of the draft leaves \$99.64, the present worth or the amount for which the draft is to be sold. This principle also applies to non-interest bearing promissory notes.

If an interest bearing promissory note is discounted, the present holder is simply paid the face value and the interest to and including the day of discount.

DIAGRAM NO. 7—CLOSED LEDGER

1901				PROPRIETOR	1901			
Jan.	31	Present Worth		\$2012.50	Jan.	1	Net Gain	\$1000
					"	31		1012.50
				2012.50				2012.50
				Expense	Feb.	1	Present Worth	2012.50
	2	Cash	I	200	Jan.	31	Inventory	200
				Mdse.				
	3	Cash	I	500		5	Cash	30
	4	Chas. Smith	I	20		6	J. T. White & Co.	3
Jan.	31	Gain		1012.50	Jan.	31	Inventory	1499.50
				1532.50				1532.50
				Interest				
Jan.	21	Bills Receivable	I	.50	Jan.	31	Loss	.50
				Loss and Gain				
Jan.	31	Interest		.50	Jan.	31	Mdse.	1012.50
Jan.	31	Proprietor		1012				
				1012.50				

BOTTOMRY BOND.—A mortgage given on the hull of a vessel to secure payment of money raised in a foreign country in times of emergency.

BROKER.—An agent or factor employed on commission or fee to buy or sell commodities.

BROKERAGE.—Commission charged by a broker.

BUILDING AND LOAN ASSOCIATIONS.—First devised and organized in England, early in the 19th century. Their purpose is to enable persons of small means to secure homes, and at stated intervals to put aside fixed sums to make the investment safe and profitable. Formerly the home-building or home-buying fund was derived wholly from the periodical payments of members (shareholders). Now prepaid, full paid, and permanent shares are sold by the associations, payable in full in advance or by installments as the subscribers may elect. Special deposits in any amount may be made, and shares partly paid are raised to their par value by adding to payments made, the dividends apportioned to such payments. Special deposits may usually be withdrawn by the depositor at will, but installment and prepaid shares must remain in until they reach par value. Full paid shares must remain in a certain time and permanent shares until the corporation dissolves. The first association in the U. S. was the Oxford Provident Building Association, founded at Frankford, Pa., in 1831. Now this country has more than 6,000 such organizations, with assets exceeding \$650,000,000.

BULL.—A term applied in the stock market to one who buys with the expectation of an advance in prices.

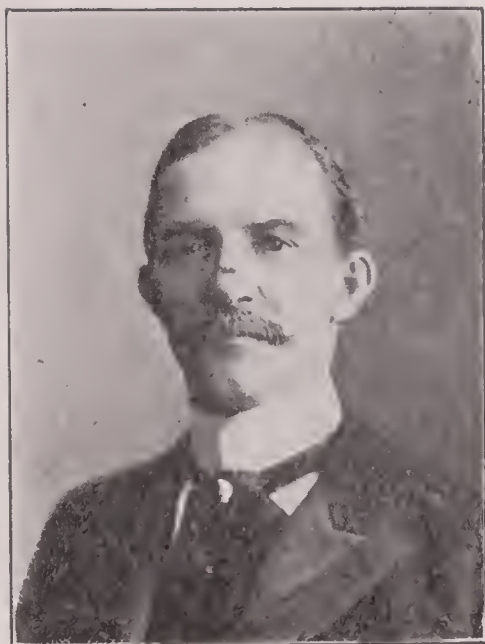
BULLION.—Gold and silver uncoined.

BURSAR.—Treasurer or cashier of a college or other institution.

TRAINING YOUNG MEN FOR BUSINESS

By C. C. GAINES

President of the Eastman Business College



IN THESE early years of the twentieth century, the paramount interest is business. The enormous aggregations of capital engaged in trade and commerce, in manufacturing and transportation, have given a new meaning to the word. The business men of the day are the rulers of the world. The men whose names are on all tongues, and in whose deeds all continents are concerned, are the men of millions. To the average young man, the names most familiar are those of John D. Rockefeller, Andrew Carnegie, John Wanamaker, Marshall Field, and others, once poor boys, but now prominent through great achievements in business.

Are leaders like these produced by training? If so, what is the process? Is it possible to discover the formula, to enunciate the set of rules, by which genius in business is developed? I fear not. Preëminent men are blessed with exceptional gifts. They arise out of that mysterious combination of innate faculty, force, and opportunity which are always coefficient in the making of a great man.

But the problem before us does not concern genius. It is what to do for the average American boy,—the boy who in the near future will begin life; whose “economic activity” will be business, and who would seek through training to become an able man of affairs. I want what I may say to help this boy to become a better man; to enable him to render better service, and to inspire him to a higher view of the vocation to which he is called. I shall confine myself to his character, his habits, his qualifications, and his opportunity. The most important part of training is man-building, the greatest work in the world. The bed-rock on which to build the business man is character.

What is character? It is the work of many unseen influences; heredity is its seed, environment its soil, and will force its secret.

Character grows. It does not spring, like Minerva, full-panoplied; no, not even in those who are born again; but "day by day, here a little, there a little, grows and strengthens for good or bad." Good intentions and good principles may both be unheeded, and go to atrophy and decay; or they may grow into that superb discretion which gives masterly control of all wrong impulses, that splendid moral potency which neither temptation can weaken, nor disaster destroy.

Disraeli remarks: "The youth who does not look up will look down, and the spirit which does not soar is destined to grovel." The future holds blessings for the young man who goes into business with the ambition to deserve the respect and esteem of the wise and good; who appreciates the value of loyalty, purity, honesty, and truth—the unstained shield. But the boy who believes that success depends on sharpness and chicanery; that the ability to get the best of the bargain, no matter by what deception and meanness, is business—is sure, sooner or later, to discover that he is the victim of his own treachery. All experience goes to show that no enduring success in business can be achieved through dishonesty; and that no matter what the talents and energies, no matter how liberal, polished, and profound the education,—these are of little value unless accompanied by personal integrity.

May character be inculcated? Not in perfection, perhaps; yet, with proper training, everything is in favor of giving the average young man good character. But his heart must be educated not less than his head. If as much attention is not given to his conscience as to his mind, the knowledge we may give him, no matter what the branches of study, will be just as apt to polish a cunning scoundrel as to perfect a Christian gentleman.

To this end we want better schools, rather than more schools, and higher instruction, rather than the higher education. Above all, we want better training, more knowledge of the moral law, more restraint by and obedience to parents, more self-control, more "thorough discipline, early begun, and never relaxed, on the great doctrine of will-force as the secret of character." God gives the opportunity; man's free-will makes the choice. It was Solomon who prayed: "Give, therefore, thy servant an understanding heart, that I may discern between good and bad." Every day of his life, again and again, man must decide between true good and what is "only evil continually." This conflict he must face in every environment,—domestic, social, political, business. With persistency of purpose, with patient and skilful labor, he must pluck out the weeds, and plant good seed, or nettles and thistles will take root and grow, to bring thorns for his feet and stings for his hands.

It is for you to determine what your habits shall be; whether you shall rise when the time comes for leaving your bed; whether you shall

be promptly in place at meals; whether you shall eat only wholesome food; whether you shall study, or hate your books; whether you shall get an education, and be known as a cultured gentleman; whether you shall be polite and appreciative or the opposite; whether you shall work with energy and enthusiasm, "with a will," or be lazy; whether you shall read the best books, or those which corrupt good taste; whether you shall select good companions and elevating associations, or those which are degrading; whether you shall speak kindly, truly, distinctly, correctly,—or roughly, profanely, and with foul words; whether you shall spend your leisure in exercise, reading, wholesome amusement, and recreation, or in loafing around the street corners and saloons, in card playing and telling filthy stories; whether you shall pay cash, or run in debt; whether you shall keep good hours, and preserve your physical health and vigor, or waste your energies in late hours and dissipation; whether you shall meet temptation, and master it; whether you shall smoke a cigarette, or never touch tobacco; whether you shall shun intemperance, as you would a contagious disease, or take the first drink; whether you shall purify your thoughts, or have a mind full of evil imaginings, unclean sights, and lascivious pictures; whether you shall be brave enough to set a good example, and to refuse to follow a bad example; whether you shall support the right, and be an aggressive force for good, or throw away your manhood and make your life worse than a failure. You may be what you will; what is good, or what is bad. But be careful. Your reputation, your position socially, your standing and success as a business man, your health of mind and body, your happiness, your character, your destiny—will all be determined finally and forever by the habits you are now forming, of thought, of speech, of action.

"If I were a boy," says Bishop Vincent, "I should want father and mother, older brother and sister, pastor and teacher, neighbor and best friend, books and periodicals, to say and resay, and to say it over again, as birds sing their songs, and as waves roll on the worn beach: 'You are not a thing,—a stick, a stone, a lump of clay or putty,—but a person,—a power, a creator; not so much an effect as a cause; not to be led by a whim, but to be ruled by a will.' Classes for spelling and word learning, for reading and writing, for handling figures and drawing geometrical lines, are good, but the best class to be earliest organized and longest sustained, the class in which a two-year-old should be an advanced pupil, the class that never graduates,—is the class in which a boy is trained to say: 'I ought, I can, I will; and what I am, in the long run, in the final outcome, I am to make myself.'"

The primary training prescribed for all young people should never lose sight of the fact that it is impossible, whatever the individual func-

tion in life, for them to escape business relations. Man living in a state of society is, by nature, a commercial being, a creature of exchanges. He cannot get without giving. His duty is not to himself alone, but to neighbors, to country, to God. He should be able, not only to understand, but to discharge acceptably, the duties arising out of these several relations; and for his own comfort, if from no higher motive, he should be given such a course of instruction and practice as will fit him for the proper conduct of his own affairs.

I conceive that the training of all children, to a certain point, should be uniform. I would measure that training by this standard; what is it the boy most needs to be and to know, in order that he may act with discretion and wisdom in meeting his various responsibilities as a man? The first essential of education is to know something; the second, to know the most of that which one most needs to know.

How to work is the thing the boy most needs to know who has his way to make in the business world. "*Labor omnia vincit*," and no business man may expect to conquer without it. In my twenty years' experience as principal of a business school, I have found only those young men impossible—I may even say hopeless—who could not be induced to work. The business men who succeed do so by unceasing application. Ask any man the secret, no matter in what activity, and he will answer: "It is toil, grit, endurance; not simply ambition, but sustained ambition; not only aspiration, but perspiration." "Whenever I hear a young man praised as giving unusual promise, as a man of genius," says Ruskin, "I always ask just one question, Does he work?" Dr. Edward Everett Hale once told me that his father was so bent on teaching his children to employ their leisure profitably, that he made it a rule to arrange every day some useful work to occupy part of their time.

Of hardly less significance is concentration, or patient industry—the power of drudging, hour after hour, and day after day, until the work in hand, whatever it may be, is done. Be it sweeping the store, or extending and adding columns of figures, or planning the season's purchases, or writing advertisements, or selling goods,—handwork or headwork,—the business man must be so trained that he is able and willing to do it, if need be. The successful man not only thinks; he acts. He does things. His secret is in his plans, it is true; but it is hardly less in the promptness and efficiency with which he executes them.

Ability, or the power of doing well the thing to be done, comes next. The successful manager must take pride in his work, and be clearly master of every detail, small and great. The most satisfactory means of acquiring this mastery is by actual experience. To this end, the merchant should have early contact with the business he is to follow; the

younger he begins to trade, the more likely he is to love it. No man may expect to prosper who does not have a taste for his business, a genuine appetite for its most commonplace transactions. If these seem to him arduous, unpleasant or trifling, he had better devote his energies to some other vocation. One cannot succeed eminently in what one despises. The late A. T. Stewart never lost his eagerness for his business, and is said to have taken as much pains, and as evident pleasure, in waiting on a customer during the latter part of his life as when he began business. It should be added that his customers were never better pleased than when he served them, whether they knew who he was or not.

I have thus far said little of what training should be given at school. The business man should have the best education the time and means at his disposal make possible, but should never be permitted to lose sight of the calling to which he is to be devoted. The contact-experience, suggested above, should not be permitted to take the boy from school, but should be given on Saturdays and during vacations, in the time not required for study.

The merchant of fifty years ago believed that business could not be learned by educational processes. So the school which proposed to teach business was looked upon with suspicion. It advertised to do the impossible. The tricks of trade had to be taught in the shop or in the counting-room, under a system of apprenticeship. The merchant received the boy into his family, and made him the trusted companion of his life and labors. It was the same in that day in all trades. But conditions are changed. The volume of business now transacted, and the methods in vogue in offices, stores, and factories make it impossible for the business man of to-day to afford time for the general training of his clerks and assistants. The shop is the place where training must be used rather than sought. Thus, in many occupations, it has become necessary to substitute practical training in the schools for the teaching formerly given through experience.

Until very recently our general scheme of education in America, except in proprietary business schools, made no provision for specialization in this direction. The same condition prevailed in England. On the Continent, especially in Germany, Austria, and France, public attention has for many years been wisely drawn to the importance of commercial education, and courses of instruction, admirably systematized, have been arranged for their higher schools. In the present keen struggle for trade, place, and position, the work done by these schools has so clearly demonstrated its advantages to the commerce of the country, and to the students themselves, that educators, both in England and America, have been induced to provide adequate systems of training for pupils of all ages; for those who would begin as office boys and clerks at from

fourteen to sixteen, and for college and university men of from twenty to twenty-five, who wish to be prepared for higher functions than merely clerical service or trading behind the counter generally entails.

In this great work the American business college has been the pioneer. The training given in these schools has, indeed, been narrow, but it has also been thorough and practical. With ninety-five per cent. of the youth of this country, girls and boys, the question is not so much how to live, as how to make an honest living. The commercial schools solve this problem by affording the shortest road to business employments.

A few of the schools give excellent courses of public lectures by men of note, a sort of chair of entertainment and inspiration. The aim is to give the qualifications sought by business men in an assistant properly equipped. These are really accomplishments, and not scholarly attainments, and, for this reason, I fear, they have received too little attention at the hands of educators who rather despise what they conceive to be utilitarian.

But the present generation is persuaded that ability is of not less importance than erudition. Gradually, the world is learning the necessity for skilled, trained work in everything from the lowest to the most intellectual vocations. The business school owes its existence to this fact, and will continue to occupy itself largely, if not exclusively, with utilitarian purposes. It believes in holding definitely to its training, and in drilling incessantly toward the realization of practical results. Its work is not as well done by any other type of school, high or low. That the accomplishments it imparts are of prime necessity to good clerical efficiency the business men themselves bear witness. Mr. Robert Ogden, manager of Wanamaker's New York store, said in a recent address to teachers that through errors from bad writing, alone, their business was losing more than twenty thousand dollars a year.

In appreciation of the value of this work, the University of New York, through its Board of Regents, extended recognition to the more worthy proprietary business schools of this state about five years ago, by offering to register such as were found on inspection to maintain satisfactory standards, and to have facilities for preparing students to take examinations for state certificates and diplomas. The movement has not accomplished all that was hoped for it, except in the direction of awakening interest. It will finally result in elevating the standards of the commercial schools all over the United States, and in establishing in other schools professional training for our great captains of commerce. Already, Commercial High Schools are being organized in all our chief cities; and the University of the City of New York has established a School of Commerce, Accounts, and Finance, in which to give more extensive advantages to public accountants and business men generally.

Similar schools have also been opened in the Universities of Pennsylvania, Chicago, Wisconsin, and California, and one is being organized by Columbia. The rapid development of business life among us, and the wide diffusion of wealth, require that our colleges and universities shall afford the best education for the young business man of the future, by whom is to be administered the largest trusts and responsibilities in which private capital has ever been employed.

The opportunity is to the young man who will qualify himself. Said Hamilton W. Mabie in an address to my students: —

“This is the age of the trained man and the trained woman. That is the thing I want to write on your hearts. There was a time in this country when opportunities were so great, and there was so much to be done, that any man or any woman who had a good heart and a good character, and a strong arm, might achieve a certain degree of success. I am not saying that that time is entirely passed. I hope it will be long before it is entirely passed. But this I am saying to you, that if I were a young man or a young woman going out into the world to-day, I should not dare to go, unless I had given myself every possible educational opportunity; unless I had made myself absolutely master of the thing I wanted to do. I tell you to-day that the tragedy of modern life is the tragedy of the half-educated man or woman; it is the tragedy of the man or woman who wants to do something and cannot do anything well.”

Our trade, both domestic and international, is growing more complex. Its transactions are larger, but keener competition reduces the percentage of profits, and makes it necessary for the successful merchant to know more than he ever knew, if he would not be at a disadvantage in the general struggle. The nation whose resources in agriculture, in mining, in manufactures, in commerce, enable it to feed and clothe the world, needs merchants of the highest intelligence, financiers of wisdom, alert, inventive, and enterprising organizers.

Recognizing this as their opportunity, all the universities of the country will, in the near future, provide for the higher scientific training of our merchants and business men. Such training alone will qualify young business men to work with the foresight and certainty which are rendered necessary by our social and commercial relations. Already these schools, in their technological departments, are training men of science for our laboratories, mines, electrical and railway plants. What they have done in this field accounts, in a large measure, for the tremendous advances we have made during the last fifty years in all things material. They may, with equal promise, undertake to train the sons of our famous business men of to-day to be worthy successors of their sires; to give to our business interests leaders fitted both to live and to make a living.

Nor will the course of study they give be open to the charge "superficial and narrow." It will include every branch of knowledge that bears in any way on the practical side of a business life, or that leads to larger comprehension of his duty as a citizen of this great country. Our future merchant will be taught, not only arithmetic, bookkeeping, correspondence, and other things that make him efficient for clerical service, but the sciences, natural and philosophical; the economics, political and social; the principles of government and institutes of law, commercial, statute, constitutional, and international; besides English, the modern foreign languages, as German, French, and Spanish,—all, but especially the last, of growing importance in the United States. He will also be taught how to establish and conduct a business; the uses of credit; the rules of commercial and industrial action and administration; the art of public address; the methods of financing and organizing corporations; the means of transportation and communication by land and water; as to industrial combinations of capital, labor unions, etc.; the duties of employers and employees; about raw materials, commercial products, general cost and selling price, markets, tariffs, and every other matter which goes to fully equip the future leader in the field in which he is to be active.

There is a fine future before the young business man, if he will only fit himself to occupy his place. Already the United States Senate is referred to as the millionaires' club. A recent English Cabinet contained directors in not less than sixty-four companies. The business man is the power behind the throne. He controls the sinews of war, and the destinies of empires are in his hands. He is the modern Joseph to the Pharaohs of the twentieth century. He is the king-maker, if not the king.

ARE THE CHANCES FOR YOUNG MEN LESS TO-DAY?

*OPINIONS OF CHARLES R. FLINT, RUSSELL SAGE, GEN. FRANCIS
V. GREENE, JAMES B. DILL, AND OTHERS*

CONTEMPORARY history is filled with inspiring stories of fortunes won and fame achieved by men who began life poor. Most of these men belong to a generation that is passing away. In the commercial and industrial realm, conditions have greatly changed since they struggled against poverty and hardship. Great corporations known as

trusts, and representing vast aggregations of capital, have come into existence and already exercise a dominating influence in many departments of trade and manufacture. There is every indication that combinations of this sort will increase. The trend of industrial evolution is certainly in that direction. Of vital interest is the question: How do these new conditions affect opportunities of young men now beginning the battle of life?

Answers to the question here presented have been obtained from men who are peculiarly qualified to speak with authority on the subject, because their knowledge has been derived from practical experience and observation, rather than from theoretical study. No one has a closer acquaintance with business conditions as they actually exist than has Charles R. Flint, one of New York's most conspicuous captains of commerce and industry. Mr. Flint says:—

“Highly developed organizations, resulting in an enormous volume of business, have increased the necessity for intelligence; and, since the supply of brains is not equal to the demand, the price of brains has risen. The combining of individual enterprises has caused the retirement of old men to the advisory boards, and has made way for young men for the active posts. In our factories, our mines, our railways, in every field of organized industry, there are ten times as many men receiving \$3,000 a year or more as there were thirty years ago. The population of the country certainly has not increased tenfold in that period; this increase in the number of good salaries is *prima facie* evidence that there has been an increase in the number of opportunities for men of ability.

“While economic evolution is centralizing production in large corporations, decentralization of ownership goes on simultaneously through the rapid distribution of shares. Under the old conditions of private ownership, the control of many of our industrial enterprises would have been inherited by one individual or family. Now the control is subject to the rule that prevails in the administration of our state—the rule of the majority. It is seldom that the heirs of industrial giants have the capacity to succeed to the management of gigantic enterprises. The majority of stockholders—for, generally speaking, the numerical majority is also the majority in interest—elect as officers aspiring young men who, through years of application to a particular industry, have proved their ability to assume the responsibilities of leadership.

“It is not merely in the highest positions that this rule holds good. The rule in every corporate business is to divide responsibilities among men fitted by their training to direct special departments. The head of a single department in a great modern concern has more authority and responsibility than the owner of a private business had twenty-five years

ago. I know that great industrial concerns are frequently embarrassed because they cannot find men who can command big salaries, and that the directors of our financial institutions are put to it to find trustworthy men capable of handling great undertakings."

Russell Sage, who has apparently found the secret of youth as well as of success that leads to ever increasing millions, says:—

"The young man of to-day certainly has far more opportunities to succeed than existed thirty or forty years ago. The field is broader. New industries are constantly being established. Big enterprises create a demand for men of big brains. The salaries paid are such as in my early days were never dreamed of. Large corporations are in the market for talent, and they are bidding more for it than was offered before, because they cannot get enough of it."

General Francis V. Greene, soldier, engineer, business man, and successful in all three capacities, says:—

"There are three sorts of men, and for two of these sorts the tendency toward industrial consolidation is a distinct advantage, while for the third there is no salvation in any economic system that has yet been devised. These three classes are: First, the thoroughly competent, who go to the top and command annual salaries that would once have been fortunes; second, the half competent, who find profitable employment in subordinate positions, and are saved from going into business for themselves and failing, as they would have fallen under the old system; third, the incompetent, who sit on the park benches as they would have done before.

"In the four years ending June 30, 1900, the exports of the United States were \$4,800,000,000. In this same period the imports were \$2,900,000,000, leaving a balance in our favor of almost \$2,000,000,000. This country is so big, and its trade is becoming so vast, that big concerns are needed to handle it. No collection of small manufacturers, without a common purpose except to fight one another, could hope to handle such a business. It requires consolidation, organization, and heads capable of handling armies of men. This is the opportunity of the young man with brains. So far as I know anything about large concerns, they all are looking for good men to take high executive positions. The man who has the advantage of an education in a technical school, and possesses business ability, will be rushed right along to the top. The great combinations can well afford to pay large salaries to men who can manage their expensive machinery and who are trained to high special labor. Every increase in the extent of commercial organization and in the trade of the country widens the range of opportunities. There never has been a time in the history of the world when there were so many chances as there are now for young men."

James B. Dill, the corporation lawyer, who finds that the new conditions contribute very materially to his own success, since he has received a fortune in a single fee, says:—

“In the great corporate combinations of to-day, individualism of character, individualism of brains and training, individualism of mind, are at a premium. The solution of the corporate problem, the trend to corporate combination, the tendency to the centralization of control instead of displacing men, arranges men in their order according to their character and education.”

United States Senator Dolliver says:—

“It is evident that the enlarged activity of commerce and industry calls for better training than the simpler methods of the past, and enough is already known to make it sure that, instead of cutting off the chances of success, they have been multiplied in a thousand ways. It is significant that practically all the great fortunes of our time were accumulated by men who started with nothing and worked their way to the front. Whether these estates are in mercantile establishments, in railroads, or in factories, one thing may be set down for certain,—that they require brains to administer them; and every one of them is a bidder for the best administrative talent there is to be found.

“The truth is that the new industrial conditions have put emphasis on the demand for men of brains and character, the like of which this world has never before known. It is for the young men of the United States to get ready to meet the conditions of these larger problems. The call is not for all; it is only for those who are prepared. The preparation required is not altogether theoretical; it is intensely practical. The man who fully masters the business with which he connects himself, is bound to come to the front.

“The tendencies of modern business have created an almost unlimited number of positions of responsibility which, in the very nature of the case, must be filled from below. Young men without means, and without influential connections, will fill these positions. Within a few years the great merchants of to-day will be dead, and their places will be taken by those connected with the houses who have demonstrated their fitness to become leaders. The railroad officials whose commands now control the commerce of a continent will soon be in their graves, and anxious boards will be looking for their successors. They will pass by even their own children, and go down the pay-roll of the company to find the man who, by his complete grasp of its business, is better qualified than anybody else to manage it. Though men pass from the stage of action, these great business enterprises must go on; and, while they go on, they have a thousand eyes looking for the men intellectually equal to the task of administering their affairs.”

W. A. Nash, President of the New York Corn Exchange Bank, says:—

“Our country is filling up rapidly, but new avenues of occupation are being constantly opened and opportunities for advancement are far more frequent to-day than when I was a boy. Bankers are on the alert for trustworthy and capable young men. Influence and personal interest may be important in securing a position, but afterward, every man must stand on his own merits.”

Alfred F. Bolles, Professor of Finance and Political Economy at the University of Pennsylvania, discussing the effects of the tendency to consolidation in the banking business, says:—

“Manifestly, the prospect for the top places is not so bright as it was a few years ago. But then there are many places of great responsibility which demand a high order of ability and whose occupants are well rewarded. The great banks have more of these places than the smaller, and thus much that is lost to the individual through consolidation is returned, in nearly, if not quite, as high places and salaries as under the old order.”

President Schurman, of Cornell University, takes this hopeful view of the outlook for the young man ambitious to succeed:—

“Judging from our experience at Cornell University, there never has been a time when there were so many demands for able and well-trained young men as at present. Perhaps the majority of these applications come from concerns supported by large combinations of capital. As the success of this sort of business depends upon the ability with which its affairs are managed, young men of character and brains are indispensable, and wonderfully high salaries await those who can earn them. I think that the opportunities for young men under the present system of large combinations of capital are greater than ever before in the history of the world.

“It is a mistake, however, to suppose that small concerns and competitive undertakings have been eliminated by these great combinations. There are now, and always will be, small factories, small stores, and other similar enterprises. Service in some of these may give a young man more varied responsibility and consequently more varied training. But so far as success is concerned, if one measures success by the financial compensation received, I think young men will have better opportunities in the large institutions than in the small ones.”

Speaking of the engineering profession, Mr. Schurman relates this striking example of the growing demand in its ranks for young men properly trained:—

“Fifteen years ago, the manufacturers of machinery had to be coaxed to take those pioneers, the Cornell men, into their shops and

give them a chance. But where one went, many followed. Last spring, when the class of 1900 came to graduation, every student in this branch was eagerly bid for two or three times over. One great electrical firm alone asked to be given the entire class."

A writer, discussing the chances of the young man of to-day, says:—

"During a recent visit to that hive of industry which swarms around Pittsburg, and in the valleys of the Monongahela and Allegheny, we were impressed with the fact that in most of the great manufacturing establishments, the highest positions of responsibility were filled by men who were yet several years on this side of the prime of life. That such young heads should so often be directing vast industrial concerns, is due in part to the amazing rapidity with which new industries have sprung up during the past decade, and in part to the fact that the keen competition of the age calls for the adaptiveness and energy which are the natural qualities of youth.

"Time was when there was an overplus, especially in the technical trades and professions, of the supply of qualified young men; but to-day conditions are entirely reversed. Clear proof of this was shown at the recent annual commencement exercises of the Stevens Institute of Technology, Hoboken, when, out of forty graduates, only a dozen were present to receive their diplomas. This unprecedented condition of things was explained by President Morton on the ground that the demand for graduates to fill business positions this year had been the most urgent in the history of the Institute, and that most of the absentees had been induced to leave the Institute a week or more before commencement, in order that they might begin their professional duties at once. President Morton further stated that the whole of the forty graduates could have secured positions at once if they had so desired. There is no gainsaying the significance of such facts as these."

Some striking examples might be cited of men who have achieved success under existing industrial conditions. One such is Charles M. Schwab, of Pittsburg. Twenty years ago he received as wages a dollar a day, at the Carnegie Works. Now, he receives an enormous salary and is worth several million dollars. Among his subordinates are forty or more who are paid salaries ranging from \$15,000 to \$50,000 a year. H. H. Vreeland, of the Metropolitan Street Railway Company, is another inspiring type of the man who finds existing conditions an aid rather than an obstacle to success. Twenty years ago he was shoveling gravel on a construction train on the Long Island Railroad. Now, as the executive head of a vast street traction service, he is in receipt of a princely income.

It is not easy to find men who have themselves succeeded, who take other than a most sanguine view of the opportunities for the brainy

young man, afforded by the changed industrial conditions that dominate the business world. But it is said that the young man has fewer opportunities than formerly to set up in business for himself. J. Harry Selz, a member of a large manufacturing and jobbing firm in Chicago, says:—

“Whenever a manufacturing plant becomes the property of a trust or combination, a change takes place in the spirit of the men, particularly of the young men, in its employ. The hope of securing a proprietary interest is gone and with it the ambition it inspires. From the manager to the cheapest laborer, all who are actively identified with the work of the trust, are employees. To be sure, some of them command imposing salaries, but there is no escaping the uninspiring consideration that they are servants and must remain servants, doing the bidding of a ‘board’—of an impersonal master. There is little in this prospect to fire the ambition of the typical American, who loves personal liberty and independence, and who would prefer to be his own master, and the proprietor of a humble enterprise expressing his own individuality, than to hold a position of large responsibility and limited authority in the service of a combination.”

The answer to this made by men who defend industrial combinations, is that statistics show that only a very few of every hundred who set up in business for themselves escape failure; that being one's own boss is usually by no means an enviable lot, and that, measuring success by dollars and cents, which is the practical business way of looking at it, the opportunities for achieving it are open to a far greater number to-day than ever before.

HOW TO GET A POSITION AND KEEP IT

*ADVICE OF MARK TWAIN TO A YOUNG MAN—WHAT
OTHER SUCCESSFUL MEN SAY*



HERBERT H. VREELAND

A GOOD many years ago, a young stranger, from the West, who was anxious to become a journalist, but was without friends or influence, appealed to Samuel L. Clemens [Mark Twain], to help him to a position on some metropolitan newspaper. Mr. Clemens, who had ideas of his own about how to get a situation, replied as follows:—

“If you will obey my instructions strictly I will get you a situation on a daily newspaper. You may select the paper yourself; also the city and the state.”

Back came a grateful answer from the young man, naming the journal of his choice, and promising that whatever his benefactor's instructions might be, he would obey them to the letter. Then Mr. Clemens wrote in this wise:—

“Almost any man will give you a situation if you are willing to work for nothing. The salary will follow presently. You will only have to wait a little while and be patient. Therefore,—

“You are to apply for work at the office of your choice. You are to go without recommendations. You are not to mention my name, nor any one's but your own. You are to say that you want no pay. All you want is work,—work of any sort. You are so tired of being idle that life is a burden to you. All you want is work and plenty of it. You do not want a penny's worth of remuneration. You will get the place, whether the man be a generous or a selfish one.

“When you have got it, do not sit around and wait for others to find work for you. Keep watch and find it for yourself. When you cannot find it, invent it. This will make you needed friends among the members of the staff. When you see a thing that is worth reporting, go to the office and tell about it. Soon you will be allowed to put such things on paper yourself. Thus you will drift by natural and sure degrees into regular reporting, and will find yourself on the city editor's staff, without any one's quite knowing how or when you got there.

“Meantime, though you may have made yourself necessary, possibly even indispensable, you are never to mention wages. You can afford to wait, for that is a matter that will take care of itself. By and by there will be a vacancy on a rival paper. Some reporter of your acquaintance will speak of you, and you will be offered the place at current wages.

You will report this good fortune to your city editor. He will offer you the same wages, and you will stay where you are. After that, when higher pay is offered you on another paper, you are not to take the place if your original employer is willing to keep you at a like price."

The young man, though much surprised at their character, faithfully followed Mr. Clemens's instructions. He got the situation for which he applied,—that of general utility man,—and within a month was on the city editor's staff. Before the end of the second month, he was offered a salaried position on another paper. His employers duplicated the offer, and he remained with them. His salary was twice raised by the same process during the next four years. Then he became chief editor of an important daily in the South, and he still holds that position. Five other young men, who subsequently applied to Mr. Clemens for aid, were furnished with the same letter of advice, followed it, and found the positions they were seeking. One of the five is now chief leader writer on one of the most widely known and successful daily journals in the world. He has never served but the one employer. The same man pays his large salary to-day who took him, an unknown youth, at "nothing and find himself," less than twenty years ago.

Herbert H. Vreeland, the president of the Metropolitan Street Railway Company of New York, delights to tell of how he secured his first situation. He was born a poor man's son, and his father died when he was a child. Then the widowed mother moved to Jersey City, and the ten-year-old lad set out to find work. For days his search was without avail, but, in the end, a German grocer, touched by his earnestness, gave him a place as chore boy. He did his errands briskly, and was on the alert for something better. He had not long been chore boy when, one day, the driver of the grocer's wagon had trouble with a horse in front of the store. The driver wanted to go in one direction and the horse in another. The driver resorted to profanity and a whip, and the horse finally refused to do anything but to kick the wagon into smithereens. The chore boy watched the horse and the driver for a time, and then said to his employer that he thought he could make the horse go.

"What does a boy like you know about horses?" replied the grocer. "You just keep away from that animal or you will get the top of your head knocked off."

"But I know something about horses," persisted the lad; "I was brought up with them, and I know I can handle that one."

"All right," said the grocer, "keep away from his heels and see what you can do with him."

This was Vreeland's opportunity and he made the most of it. Taking the horse by the bridle, he began softly rubbing his nose while he talked to him, and soon the animal forgot all about the trouble he had had with

the driver. Then young Vreeland climbed into the wagon, drove the horse around the block, and came back to the store. He was then and there promoted from chore boy to driver of the delivery wagon. He had gained his first job, and had mounted the first round in the ladder of success. "I place a great premium on faith in oneself," said he. "Man can be too confiding in others, but never too confident in himself. It is not so much method as mind that is needed to solve the problem how to do it. If you believe that you have talent, you have it,—use it. Most men who succeed in this world make their own opportunities."

Erastus Wyman secured his first situation through his own unaided efforts. "I earned my first money," said he, "selling newspapers on the streets of Toronto. While thus employed, I learned that an apprentice was wanted in a printing office. I applied for the position and secured it. I was then fourteen years old, and received in one payment \$1.50 for my first week's work. The pride and joy that thrilled my slight frame on the Saturday night when I took to my mother that immense sum—the earnings of six days' and two nights' hard labor—has never been equaled by any emotion since experienced, in a life that has proved more than ordinarily successful. We—my mother, my sister and myself,—were having a hard struggle, living over a little grocery store on King Street, Toronto. The first fruits, in the shape of absolute cash, were the most welcome harbingers of a happy future for both these dear ones, that a loving son and brother ever enjoyed. For four long years I earned, as an apprentice at the case, wages enough to help sustain our happy household, never, however, exceeding nine dollars per week. I shall never forget the first Saturday night on which I received the magnificent sum of five dollars. My sister and myself walked down the principal street with this great sum, looking in at the milliners' windows, intent upon buying a bonnet for our mother with that not absolutely needed to procure food. It was a discouraging journey, for everything seemed beyond our means, but finally a bonnet shape was secured, and, with a few black ribbons and a purple flower, the dear sister worked a miracle of beauty out of a trifling expenditure. Those were happy days, when it took ten long hours of hard labor to earn a dollar,—ten cents an hour,—yet in that week's experience was laid the foundation of a love for work, that is at once the delight and the reward of life."

The early experience of John V. Farwell, the founder of the great wholesale dry-goods house known as The John V. Farwell Company of Chicago, offers an inspiring example to a young man who is seeking employment and anxious to get on in the world. Mr. Farwell owed his start on the road to business success, not to securing a position, but to being discharged from one. "I settled in Chicago in 1845,"

said he, not long after. "I had no friends in the city, and only a few dollars in my pocket. I at once started out to seek employment, and finally secured a position in the city clerk's office. By virtue of the position, I was soon assigned to make reports of the meetings of the city council, securing, for this work, extra pay to the amount of two dollars a meeting. Soon, however, I ran against a snag that caused me to meet with shipwreck. In my reports of council proceedings, I set down things exactly as they occurred, and this did not please certain aldermen. Although I received more than an inkling of this, I continued to make accurate reports, and, the first thing I knew, I was discharged from the employ of the city. The blow was a severe one to me, as work was hard to find. I was, for a time, deeply discouraged, but quickly rallied and soon found work as a bookkeeper for a dry-goods firm. It was in this place that I resolved to become a merchant, and, although my salary was very small, the work gave me an insight into the dry-goods business. After a time, I was offered a position with another house at six hundred dollars a year, which enabled me to save a good deal of money. Within five years of my arrival in Chicago, I was made partner in the firm. I have sometimes wondered what would have been my lot if I had stayed in the city clerk's office."

Getting a position is one thing; making it a road to something better is another and an equally important thing. William H. Newman was a clerk in a Louisville hotel, at ten dollars a week. He had come to Louisville from a Kentucky farm, and by his own efforts had secured a position as clerk. He gave strict attention to his duties, made himself popular with the guests of the hotel, and saved his money. Theodore Harris, now the president of a Louisville bank, was proprietor of the hotel. Associated with him in the management were John S. Long and Colonel R. B. Hall. All three took a fancy to young Newman, and, when Mr. Hall was elected president of the Southern Pacific Railroad, he made Newman its freight agent at Shreveport, Louisiana. The young man quickly mastered the duties of his new business, and within a few years was at the head of the traffic department. His ability to secure and handle business attracted the attention of the late Jay Gould, who put him practically at the head of the traffic department of the Gould Southwestern Railway system. Another step upward made him vice-president of the Missouri Pacific Railway, and in 1889 he took a similar position in the management of the Chicago and Northwestern Railroad. Four years ago, Mr. Newman entered the service of the Great Northern Railway, where he remained but a short time. One day, in the summer of 1899, he met an old Louisville friend at the Waldorf-Astoria, in New York. "How are you getting along?" said the Louisville man to Mr. Newman.

"Pretty well," was the answer. "I have just had a conversation with Vanderbilt and he offered me the presidency of the Lake Shore."

"Well, that is about as high as you can get in the railroad world, is it not?" was the response.

"Perhaps," answered Mr. Newman. Since then he has been advanced to the presidency of the New York Central Railroad, with a salary of fifty thousand dollars a year.

Jacob L. Greatsinger, president of the Brooklyn Rapid Transit system, was so anxious to become a railroad man that, at the outset, he worked for nothing, learning to fire on an old wood-burning switch engine at Elmira, N. Y. Three years later, he became an engineer, but was soon impatient to become a mechanical engineer. He went from the cab to the shops, and, at the same time, devoted his nights to mastering telegraphy. In 1874 he was a full-fledged train dispatcher, and two years later became the assistant superintendent of the Elmira, Courtland and Northern Railroad, now a part of the Lehigh system. Soon afterward, he was made general superintendent, and left that position to become master mechanic and superintendent of motive power on the Chicago and Eastern Illinois Railroad. He went thence to the Duluth and Iron Range Railroad as master-mechanic, and became, in a very brief period, president of the road. He ascribes his success to the fact that he has sought to make the most of every position that has come to him.

The same trait explains the remarkably successful career of Lindsay Coleman, now the foremost bicycle manufacturer in America. Coleman was born, less than fifty years ago, in Richmond, Virginia, and, while still in his teens, had a taste of mining life in Colorado. His opportunity did not come until he was thirty-three years old, and, when it did, he made it himself. It was in 1885 that he sought employment with a toy company in Chicago. The manager of the company at first declared that there was no vacancy, but Coleman was not to be denied; and, finally, work of an humble sort was found for him. The business of the concern was the making of baby carriages, wooden playthings for the nursery, and velocipedes. Ere long Coleman asked to be allowed to go on the road to sell goods, and, when his wish was granted, he secured so many orders that the factory was unequal to the demands made upon it. Thus he became an important factor in the firm's business, which grew by leaps and bounds. When it opened an Eastern branch in New York, he obtained a proprietary interest in the new concern, and soon after came into entire control. During the next six years, he became a principal, with a controlling interest in the Chicago business, and, in 1894, its manager and vice-president. The struggling toy factory had grown to be a great corporation, worth one million dollars. Twenty-five hundred

persons are now employed by Mr. Coleman in the various departments of his business. Had he accepted no for an answer, when he first applied for employment, his career might have been a widely different one.

Men who compel success do not wait for employment, when it is not to be had from others. They make it. Leopold Schepp, whose fortune now mounts into the millions, began business life at the age of eight years, with a capital of one cent. This one cent was a gift. The man who gave it perhaps forgot the sturdy little fellow who received it. Young Leopold at once invested in two newspapers, and sold them on the street. With the increased capital he bought more papers, and so kept expanding his trade, until he was one of the most successful newsboys of the day. Not satisfied with selling papers, young Schepp got a stock of suspenders, and other little articles, which he sold on the streets. Every time he changed the nature of his business, he got into something better and more profitable. Thus, through numerous ventures, he rose to the dignity of a merchant. It is his boast that he never sought employment from another.

William R. Grace earned his first money as an errand boy and shop sweeper, in New York. Then he drifted to Peru, where, in Callao, he worked in a butcher shop, and later became a ship-chandler. It was the ship-chandler's business that started him on the road to fortune. He was a shrewd, sturdy youth, industrious and ambitious. He was observant, and ever ready to grasp an opportunity and to make the most of it. He saw, at a time when few others did, the possibilities that lay in commercial exchange between South America and the United States, and as soon as he could he set up as a trader between the two countries. The business that was then very small is now very large. To-day the house of William R. Grace and Company has an international reputation, with branches in many countries. It almost controls the American trade between Peru and Chile, and a fleet of ships is engaged in its commerce. Those who are acquainted with such houses say that the former ship-chandler is now worth between ten and fifteen million dollars. Mr. Grace was asked, not long ago, what he regards as the elements of success in a business career. He replied that there were three. One, and perhaps the chiefest, was good health. Without that, he said, no person could hope for success in a prolonged business career. The second element was the power of perfect concentration, and absolute devotion to an idea until it had been accomplished. The third was the power, partly natural, he thought, but to a considerable extent to be acquired, of prescience, or an ability to forecast the future with a fair degree of accuracy. Given these three qualifications, Mr. Grace declared, in a country like the United States, a business career of dazzling and magnificent success is assured to the man who undertakes it.

When Lyman J. Gage was eighteen years old, he sought and secured work as office boy and junior clerk, in a bank, at Rome, New York. His duties were to sweep the office, go on errands, and to help with the bookkeeping. His wages were one hundred dollars for the first year, and when he asked for a raise for the second, the firm urged that he was already well paid for a beginner, and, rather than pay him more, allowed him to leave their employ. Young Gage thereupon made his way to Chicago. He had determined to become a banker, but no Chicago bank was in need of his services. He could not afford to be idle, however, and decided to take any work that might be offered him. The only opening was little to his liking, but he took it. He was employed as a sort of roustabout in a lumber yard. His duties were to carry logs from the wagon to the pile, feed logs to circular saws, and, occasionally, to drive a team of mules. The pay was a pittance. After a year passed in this way, he became night watchman of the yard, and spent his time guarding against fires, which ever menace lumber piles. Another year passed before he was again promoted. Then he was made the junior bookkeeper, but this promotion was not for long, for the panic of 1857 came on, and business depression made it necessary for his employer to dispense with the junior bookkeeper's services. Seeking in vain for other employment, he was obliged to resume the night watchman's task. Not until he had been three years in Chicago did his fortune turn. During all that time, he had clung to the idea that he was "cut out for a banker," and had become a familiar applicant for employment at every bank in town. One day in August, 1858, he was summoned to the office of a trust company where his name was on file as a candidate for any opening, however humble. The cashier asked him if he could keep a set of books. "I can try." "That is not what we want, can you do it?" "I can if it can be done in twenty-three hours out of the twenty-four." On that assurance he was engaged at five hundred dollars per year. He had obtained the long desired standing-room in a Chicago bank. A few months later he was the paying teller, at twelve hundred a year, and, thenceforward, his course was clear and his progress rapid. Mr. Gage believes that the needed position and opportunity come to the young man who seeks them and is not to be denied.

Advancement, in one form or another, always awaits a young man who makes the most of his first position. Some years ago, a diffident, serious-faced young St. Paul lad, named Frank E. Ward, went to work for James J. Hill, the president of the Great Northern Railway, as his personal stenographer. Times had never been easy with the lad, and he approached his duties with terrible earnestness. From the first, Mr. Hill was interested. He noticed that the boy always had a book handy, which

he pored over, whenever there was a minute's respite. One day, the president picked up the book. It was not a work of fiction, but an algebra, and no objection was made to the continued study. It is Mr. Hill's custom, when traveling over his road, to sit at the rear end of the train and make a flying inspection of the tracks and the right-of-way. Until Frank E. Ward's time, Mr. Hill had always insisted that whoever was with him, on a trip of inspection, should watch the tracks; but he made an exception in the case of the young stenographer, who was allowed, and encouraged, to study during the trips. Nevertheless, the boy kept a rather close watch on everything pertaining to the road and its operation, as Mr. Hill found out, from time to time, by talks with him. In due time the stenographer was promoted to be the president's assistant. Later, when Mr. Hill saw the lad, now grown to be a man, so competent to work alone, he promoted him again, and now Frank E. Ward writes "general superintendent" after his signature.

Chauncey M. Depew's ideas of how a young man can best get a situation, and keep it, are charged with hopeful common sense. "A pleasing address and an air of self-reliance," said he, "are often worth more to an applicant for work than a dozen letters of introduction and testimonials. When he has secured the position, he has only to display industry, good sense, and confidence in himself, and advancement is only a question of time."

Mr. Depew cited the case of James H. Rutter, as proof of his assertion. Rutter was a poor boy, who lived somewhere on the line of the Erie Railroad. He found employment as a clerk, or sort of freight and baggage agent, at a country station, and within a month revealed that the place and the man were suited to one another. That was in the earliest days of the road. Some of his doings which indicated talent attracted attention, and he was promoted. Then he was put in charge of the freight traffic centering at Dunkirk. There he revolutionized the methods then prevailing, brought order out of chaos, and was regarded by the Erie management as a young marvel. They advanced him until he was in control of the freight traffic of that road, and then he displayed a generalship, which, although it was costly for the Vanderbilts gained the admiration of the old commodore, so that he said: "That is a young man whom we must have." He tempted Rutter away from the Erie road with a salary of \$15,000 a year, and created a new office for him in the Central system which was called general traffic manager. One day Rutter called upon Commodore Vanderbilt and spoke of a matter of extraordinary difficulty and importance respecting some freight arrangements, and then he asked the commodore what he should do.

"Jim," said the old man, "what does the New York Central pay you \$15,000 a year for?"

"To manage its freight business."

"Well, do you expect I am going to earn your salary for you?" replied the commodore.

Rutter turned and left the room. He went out and acted on his own judgment; acted with unerring foresight, and was soon promoted to the vice-presidency. Later, he succeeded William H. Vanderbilt as president of the New York Central Railroad system.

"Rutter was hired," said Mr. Depew, "to manage the freight business of the Central. He was expected to manage it. If he did not do it, some one would be hired who could."

And this remark points a moral for every young man who is anxious to find a situation and to keep it.

THE YOUNG MAN IN THE LAW

By *FREDERIC R. COUDERT*

Ex-President of New York State Bar Association



I KNOW of no rules or set of rules which can be formulated like the provisions of the Constitution of the United States, and which, being followed, necessarily lead to eminence in the law. The elementary conditions which underlie success in every walk of life underlie this. It goes without saying that the aspirant for worldly honors or financial achievement must have intelligence, moral and physical health, and a constitution that will enable him to stand disagreeable friction and frequent disappointment.

Nothing can take the place of a classical four years' course in college in its influence on the aspirant for professional success. Many have succeeded and become leaders of men without the training and culture of a college education. Many others with all the advantages of such an education have passed unnoticed through life. But we are not speaking now of exceptional cases and may overlook both classes. Nature will have her joke at times, and laugh at rules, and scoff at experience, and give sophists a chance to argue and show their wit; but the fact, none the less, remains that the youth who has gone through the course of intellectual gymnastics that a college affords starts in life with an advantage. Those who doubt this may look at our public records, and will find how far the college-bred man is in the lead. In Congress, on the bench, at the bar, he stands out conspicuously. If you consider the small number of college

graduates in the country compared to the whole population and see what proportion they hold of the high positions within the people's gift, you must acquiesce in the general proposition.

Charles Francis Adams, some years ago, spoke of the classical "Shibboleth," as he termed it, with something like a sneer, and almost intimated that he and his forebears had made something of a failure of life by going to and graduating from Harvard. Perhaps they might have done better if they had never studied Virgil or Horace, and had never heard of Demosthenes or Euripides, but on the whole they cannot, one would think, complain of the effects of the "Shibboleth" on their house. Two presidents of the United States, one minister to Great Britain (aye, and a great one), scholars, *littérateurs*, lawyers, four generations, in a word, of conspicuous citizens! If these are the legitimate proofs of Harvard training, may she long continue to pursue the useful tenor of her brilliant way and with her great American sisters continue to develop the latent possibilities in our young men. It is the mission of all of them to do this; not to create but to draw out, to quicken, to strengthen and to adapt what already exists to the purposes of a useful life.

Mr. Brice could not fail to recognize the superiority which a classical training had secured for the bar of our country. "Next after wealth," he says, "education may be taken to be an element or quality on which social standing in a purely democratic country depends. In this respect the bar ranks high. Most lawyers have had a college training and are, by necessity of their employment, persons of some mental ability. In the older towns they, with the leading clergymen, form the intellectual *élite* of the place."

If the young man is to rise as a lawyer, it is essential that he should not be a fool, and it is equally important that he should not be a liar. There is no other profession in the world in which a deserved reputation for truth is so important. Of course, we know that there are many people who delight in their own small witticisms at the expense of the legal profession, their sense of humor being somewhat limited. It certainly is a fact that we do very often make untrue statements, but, be it remembered, those statements are not ours. We are the mouth-pieces of clients who are not lawyers, and who may or may not be truthful. We are bound to accept their statements; we make them as their statements and we endorse them as coming from them. If false, the moral obliquity is to be traced to their consciences, and not to that of an advocate whose function it is to present the facts upon which he relies for success in any given cause, together with the arguments based upon such facts. If the young advocate does not love the truth for itself, and is not self-respecting enough to despise a lie, even if

he can thereby achieve success, he were wise to do from expediency what it were better to do for conscience's sake, or else to go into some other business where he can falsify to his heart's content.

The student must be a persistent reader. If he is fortunate enough to be able to go to a law school, a wise preceptor will solve his doubts as to a choice of books by giving him the intellectual pabulum that will best serve his purpose. If not, he may read Kent and Blackstone, and then re-read them, and, if he has no other books, read them over and over again, together with the most important decisions, federal and state. One good book is worth a dozen mediocre ones. The man of one book, "*homounius libri*," has proverbially been a dangerous adversary.

The study of the Code of Practice is not of itself, although a useful, an ennobling pursuit. One of the leaders of the bar, many years ago, when the Code had been in existence for half a dozen years, gravely told me that he had discovered that the more a man knew of the Code, the less he knew of anything else. It is fair to say, however, that all the old-fashioned lawyers denounced the Code as an atrocious invasion of their time-honored monopoly, and were extremely reluctant to go to school to David Dudley Field and his colleagues.

Lessons obtained from experiences, even discouraging experiences, are as valuable as school lectures.

As to my first "discouragement," I do not remember what it was, but the most discouraging emotion, and the most exacting as well, is to feel that you have been vanquished by an opponent whose very weakness and incompetence enlisted the favor of the court, and compelled its interference for the sake of justice. A virtually unprotected adversary is a formidable foe. As a young man, I infinitely preferred to encounter an able and experienced lawyer rather than an incompetent, ignorant, and foolish pettifogger. If beaten, the consciousness that I had not been, in common parlance, "kicked by a mule" was comforting.

A lawyer's first case is, relatively, his most important.

My experience, while not thrilling, was unique in its way. A milliner, who spoke no English, sued a lady whose early education had been likewise neglected. The case was tried before Judge Lynch, of the Marine Court, who was an accomplished French scholar; the lawyer on the other side was of French extraction. As I was also familiar with the language, and the witnesses spoke no other, the judge suggested that we try the case in French, thus obviating the need of an interpreter, which we did. It was very pleasant, in a way, because it was novel, and Mr. O'Connor himself could not have done it; but I have never cared to try cases in French since that time, for the milliner got a judgment in her favor, which, after forty years' reflection, I am inclined to think was quite correct. Whether she recovered anything besides a judgment, I

cannot say. I believe that she became my client afterward, and I found her much better in every way than when she insisted on her dues from a dilatory and impecunious customer.

Whether the newly-fledged barrister should at once open an office and boldly challenge fortune, single-handed, under the influence of his own shingle or enlist in the ranks of an established firm in a humble capacity, is a rather debatable question. If he is a man of independent means, with benevolent relatives who are willing to allow him to flesh his maiden sword at their risk and expense, the experiment of a solitary attack upon the community may be made. But, as a rule, he will be willing to drop his pride and begin at the lowest rung of the ladder. Assuming him to be well equipped in the theory of the law, and to have assimilated something from the many books which he has read, he needs experience, above all things, and this he will more readily find in an active office where clients are not looked upon as phenomena, than in the solitude of the unknown and friendless attorney. Virtue is as likely to be found out as crime. If the beginner is diligent and intelligent he will be discovered. Here, as in every other calling, brains and fidelity are indispensable. The opportunity to learn by experience the young lawyer must have; and he runs great risks of not getting it, if, unknown, unheralded, and without conspicuous claims to public notice, he ensconces himself, alone and unmolested, in a brand new office. In this respect he is less fortunate than the young physician, for the latter has in the hospitals, the asylums, the jails, and the reformatories, opportunities to practise on patients whose financial and personal conditions do not permit them to select their advisers. He does not write his first prescription for a millionaire or amputate a limb belonging to a member of Congress. If he fails in his honest efforts to cure, the obscurity of the patient removes all temptation to unkind comment by outsiders. Besides this, he has behind him the careful and skilful experience of the veteran to guide, correct, advise, and help, him. This invaluable experience gives us a corps of young physicians and surgeons as able, probably, as any in the world.

But the young lawyer cannot always get clients even without a fee. He cannot, generally, secure the watchful and kindly supervision of a competent senior. If he breaks down in court or commits a palpable error or loses a manifestly good case, or egregiously blunders, his mortification cannot well be conceived. Sometimes these failures, severe as they are to his pride, are blessings in disguise, for they teach him that Minerva has not filled his cradle with unearned gifts. If he is wise, he may comfort himself with the reflection that the man, lawyer, or layman, who never made a fool of himself, was spared the trouble when he was born.

The question of adopting a special branch of the law sometimes presents itself to the beginner. The adoption of such a branch as patent law, admiralty law, or corporation law, implies a faculty of choice which the young practitioner cannot well exercise. He must first get what he can of the substantial food of life, but in the formation of his menu he has little to do. The president of a rich syndicate or of a mighty corporation will probably not call upon him before his hair is gray. He must go through many a field of battle and prove himself a valiant knight before the highest rewards are brought to his feet. No doubt brave young privates would like to wear the epaulets without waiting for the slow process of time, but alas! there are others in the way. There are stern rules which will not allow untried heroes to be taken at their own measure of value.

It is best, therefore, for a young lawyer to prepare, to some extent at least, for business of every kind. He can be ready, if a sudden and unexpected opportunity arise, to show that he knows something of a special subject with which he has to deal. There is danger, too, in his devoting himself entirely to a specialty — danger of contracting his mind and preventing its due and legitimate expansion. An old-fashioned physician once said that he objected to specialists because they made lop-sided doctors. There is much the same danger in the law.

A taste for mechanics is an excellent ally in the practice of patent law, which is, of all, the most profitable branch of law practice. I recall a lawyer practising in one of the Eastern States who was reputed to have made a large fortune out of a single patent. It was probably true, for his client said to me, whether humorously or not I shall not now undertake to say: "Oh! Mr. So-and-So, my counsel, treated me very liberally. After we got through with our fight, he gave me \$250,000." How much he retained I did not inquire. That this should be so is only natural, for a successful patent carries with it profits enough to divide among many associates. Some of them have been gold mines, as the advocates and experts, and frequently the parties themselves, can testify. But there is not much foundation for the superstition that it requires exclusive and persistent study to master the principles of patent law. It will be found that the men who have been most successful owed that success not so much to a mastery of the principles applicable to that kind of litigation, but rather to a thorough understanding of the mechanical and scientific principles involved.

Admiralty law was at one time a fruitful source of litigation and of moderate emolument for the bar, but it has greatly degenerated from its pristine glory since the commerce of the world has been carried by steam. The lovely old cases in which two sailing vessels would run foul of each other, and when bottomry bonds were taken thousands of miles

away, and when ships were not heard of for many months at a time, have passed forever. Besides this, underwriters have contracted a beggarly way of defrauding proctors in admiralty and advocates of their just dues by settling whenever they can; no effort on the part of the rising generation can probably counteract this tendency. Arbitration is the order of the day, and millions of dollars are disposed of every year in the City of New York alone in contests wherein lawyers have no share. I am inclined to believe that the bar itself is responsible to a great extent for this. Enormous charges for ordinary services have alarmed and disgusted clients. "Always keep your client within the squealing point," said an old lawyer who was flourishing when I began,—a lesson which young men should take to heart. They often forget that being dubbed with the title of "counselor-at-law" does not fill them to overflowing with knowledge, as it certainly does not bestow upon them the invaluable gift of experience. They are very apt to kill the goose that lays the golden egg, in their impatience to reach pecuniary independence. Many of them have lived to rue the day and to regret that they had not learned and observed the practice of moderation. Do what they will, the gray-headed hero of a thousand fights must perforce know something that the stripling just out of his teens has not yet acquired. The latter may not believe this, but he will discover it in time.

Every young lawyer ought to have something to do with politics, that is to say, he should entertain an opinion upon the living issues of the day, and should be able, in some measure, at least, to assist the cause which he believes to be just. Not that he should necessarily become a slavish adherent of any one of the political parties, although they are great and efficient instrumentalities, when properly directed, for doing good. A Don Quixote going around with an old-fashioned sword and battle-ax, and no one but his faithful Sancho behind him, will accomplish little, even if the principles that he advocates are entitled to respect and admiration. Political parties must be taken as they are and as representing averages. A soldier will do more fighting with one hundred or one thousand trained men with him than alone. While it may be justifiable at times to cut off from all party affiliation when conscience orders, it is wise, on the whole, for a young man to study the ground carefully and to attach himself to that organization which, in his judgment, will best serve the great, permanent interests of the country.

The hardest lesson for the young lawyer to learn, and one which some older lawyers have never been taught, is that a judge is not necessarily his enemy, a fool, or a knave, because he decides against him.

As to eloquence. The young lawyer naturally desires to be heard and to display whatever eloquence nature may have kindly endowed him with, on all reasonable occasions. This is but natural. After all,

the barrister is the knight of the profession, and has always occupied a place to which his silent brother never could attain, for eloquence is a divine gift. The human voice is the noblest of instruments, and the faculty of swaying a crowd, whether of twelve men or ten thousand, to one's caprice, is the highest with which the Creator has endowed the human being. The real orator is a magician. He may laugh at experience and snub common sense; he may fill the breast of every one of his hearers with his own passions, make them unwilling witnesses of his own prejudices and enslave them to his will. For the moment, they become his puppets and sometimes his instruments. But the real orator is very rare. Counterfeit presentments fill the land, and this fact makes it difficult for the ordinary ear to distinguish between the reality and its imitation. Many claim that eloquence is dying, or is dead, because men are now too intelligent to be swayed by an orator's accents. We might as well say that Paganini, playing on his Stradivarius, could not charm, captivate, and delight his audience, to-day, as he could have done centuries ago. The men of the twentieth century have the same organs, the same passions, the same heart, and the same brain, that they had when Demosthenes denounced Philip, and Cicero pursued Catiline. Eloquence has its value now, and always will have until the constitution of men is changed. Only the circumstances for its exercise must be considered. Eloquence out of place is no eloquence at all. To make the walls of a court-room quake when you are disputing a bill of costs will seem ridiculous. The thunders of the orator should be kept for more serious occasions. But when a human life, or the prospect of a great political party, or the welfare of the nation, is concerned, the orator stands out the master of men.

When I am asked whether the young lawyer should endeavor to be eloquent or impassioned before a jury, or merely state his case and array his facts simply and logically, the answer must be that he had better not try to be eloquent, even where eloquence is necessary, for if he has the divine fire in his breast, it will break out and burn every obstacle strewn in its path. He can no more help yielding to the impetus of his own genius than can the newly-fledged pigeon be restrained from flying as soon as his wings are strong enough to bear him.

But he must begin, and he will begin if he is a true orator, by working upon himself. It is only when he is hurried away beyond the bounds of cold and phlegmatic reason that his true powers come into play. As Mr. Hume says, speaking of the ancient orators: "Nay, to consider the matter right they were not deceived by any artifice. The orator, by the force of his own genius and eloquence, first inflamed himself with anger, indignation, pity, sorrow; and then communicated those impetuous movements to his audience."

LAW AS A PART OF BUSINESS EDUCATION

By GÉNÉRAL BENJAMIN F. TRACY

MANY men do not feel it necessary to have even a rudimentary knowledge of the legal principles which regulate their business and social activities, though it is self-evident that all men should know something at least of that which has so direct and important a bearing upon their conduct. The words of Pope: "A little learning is a dangerous thing," are particularly true when applied to law, yet all active men and women should undoubtedly possess some degree of legal learning. Many costly and bitter experiences are the result of lack of knowledge of the law. It is a well-known maxim that ignorance of the law excuses no one. Many men have innocently committed illegal acts at the penalty of much trouble and expense, and even at the cost of their lives.

While consequences of infractions of the law are often so serious that no layman should take important action involving legal considerations without the advice of a practicing lawyer, there frequently occur in the course of a business day, exigencies which must be immediately faced, allowing no time for consultation. In these numerous cases, a knowledge of the fundamental legal principles and practices frequently is of great service. Every man who is engaged in some commercial pursuit, should, for example, have a clear idea of what constitutes a contract. Unless he knows that there must be in his contract a consideration on both sides, that no contract is valid which does not involve mutual obligations, he may make mistakes that will cause important transactions to come to naught. He should know also the general legal principles regulating the loaning and borrowing of money and the making of notes. If he is a merchant, he should have knowledge of the law as applied to the buying and selling of goods; if he is engaged in real estate operations he should be familiar with the numerous common law principles and statutory enactments relating to lands and houses; if he is an importer or exporter of commodities, and is identified with the shipping business, or follows the sea in some responsible capacity, a knowledge of maritime law will be very serviceable to him. In short, the activities of every man who is engaged in an occupation are affected by certain laws, an understanding of which will enable him to proceed with much more wisdom and safety than if he were ignorant of these principles.

Yet not a little danger, as I have already indicated, lies in the possession of legal knowledge by the layman. If he depends too much upon

his own comprehension of law, if he attempts to steer his craft through the rocks and shoals and currents of law without the aid and advice of an experienced pilot,—that is, a lawyer,—he courts disaster, and, sooner or later, will run afoul of some legal reef. He would better know nothing of law than not to understand his own limitations and know when to call in his attorney. It has been often and well said that the man who is his own lawyer has a fool for a client. Even a member of the profession calls to his assistance some brother practitioner, when his own private interests are involved.

The possession of a little legal law is like the possession of a revolver; its timely use may be a great protection to a man, while its abuse, on the other hand, may get him into the most serious kind of trouble. But, if he applies, discreetly and carefully, his knowledge of the law, he will not only be relieved of the necessity of employing a lawyer in many instances where one would otherwise be needed, but he will be able to greatly facilitate the work of the lawyer when he is called in. He has an understanding of the salient facts and conditions of his case and is able to bring them clearly and concisely to the attention of his attorney, which is much to the interest of both concerned.

Aside from the purely practical use to which a man's knowledge of law can be put, he derives much mental benefit from its study. Its framework is a symmetrical structure of justice, reason, and common sense, which appeals to every man of normal intellect, and which, in its analysis, trains the mind to accurate and logical thinking. While the law embraces an immense amount of detail, its general principles are based on fundamental human rights and obligations, and constitute, I think, an important branch of general education. Every intelligent man, and woman, too, is given a broader and more comprehensive outlook on life and a better trained mind, both for abstract thought and for practical action, by a year or two devoted to the study of law. They also reach, by this means, a better understanding of the institutions of their country and of their rights and obligations as citizens, and are thus able to fulfill their various civic duties much more intelligently and to lend their influence in the direction of good government. This is particularly advantageous in a nation which, like our own, has a republican form of government.

The benefits of a certain amount of legal knowledge on the part of the layman is becoming more and more generally recognized. Every law class nowadays contains a number of young men who have no expectation of practising law. They are studying it for the sole purpose of adding to their equipment as business men. A large number have found it of great value in commercial careers. Many women, also, study law for the purpose, not of becoming practicing lawyers, but of

gaining accurate knowledge of their legal position and of their property rights before the law. Women of wealth are thus able to manage their own estates with a large degree of independence.

To recapitulate, both men and women are given, by legal study, broader and more completely furnished minds, greater practical ability, clearer ideas of justice, and a better appreciation of the duties of citizenship than are possessed by those to whom law is a sealed book. Therefore, I believe that every young man and woman would be benefited by even a small amount of legal study. To the active mind, the subject is by no means a dull one, built, as it is, upon human effort and the incessant play of passions and desires.

THE SUCCESSFUL LAWYER MUST HAVE A KNOWLEDGE OF BUSINESS

*By AUSTIN B. FLETCHER, LL. D.
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IT is frequently stated that law has ceased to be a profession, and has become a business. The statement is extravagant, but contains enough of truth to find ready acceptance with many. The commercial spirit of the age has impressed itself upon everything in it. The lawyer is no exception. He is continually consulted upon the law applying to business transactions and situations, and, if he is to give the best advice, he must thoroughly understand that to which the law is to be applied. To be qualified for this, one must have a keen business instinct, and this should be supplemented by a commercial experience. The latter may be obtained by any one, but the former is as much a gift of the gods as oratory or poetry, either of which may be improved by study and exercise, but can never reach the dignity of true success unless it is implanted in one's nature. A lawyer possessing the highest business instinct, a calm, well-balanced judgment, and the ability to quickly grasp the situation, is to-day more sought than the great advocate; and if the making of money, that last infirmity of noble minds, is an indication of the measure of success, he is the most successful in his profession.

Ninety-five per cent. of those who enter upon the practice of the law would probably have done much better if they had chosen a different kind of work. Not more than five per cent. attain a genuine success, in



accomplishment or reward. No one should enter any of the learned professions because he believes it offers large pecuniary promise. The various mercantile and allied pursuits present far greater inducements in this direction. If one prefers the law to any other occupation, he possesses one of the elements of success in taking it up. He should next be certain that he has sufficient stamina to hold the moral rudder true, for there is no profession or business vocation which requires a keener moral sense and greater strength of character than the practice of the law. Some of his clients who criticize the acts of others and the legal profession generally, will probably be the first to openly or guardedly request him to do that which all men know to be dishonorable, or unlawful. The day is approaching when the law schools will as carefully examine into a candidate's moral antecedents, condition, and tendencies, as into his mental ability. He should next have the broadest general and legal education that his circumstances will permit him to obtain. The race is not to the swift, and no time is so well spent as that given to a thorough and careful preparation.

To the information gathered from books and schools, should be added a thorough knowledge of accounts, the general principles of business, rules of trade, commercial usages, and methods.

The attainment of the above will require the best efforts of a young man until he is nearly thirty years of age, but at forty he will have far outstripped those who hurried through their preparation and began practice at twenty-one, and succeeding years will continue to widen the difference between them.

To lawyers of this class falls the management of large estates, involving the investment and care of vast sums. They become directors in banks, trust companies, and business corporations, in which their knowledge of the law, together with their acquaintance with business principles and methods, gives them an advantageous position.

Many lawyers in our largest cities have given up the general practice of their profession, and have become the legal and business heads of some of the most important corporations. Instances can readily be given by any well-informed lawyer of members of his profession, who, because they combine a knowledge of the law with a thorough knowledge of business principles, have been taken into partnership in some of the largest banking houses in the world; elected to the presidency of the greatest financial institutions, with remuneration commensurate with their responsibilities; placed in charge of railroad systems with a salary of \$100,000 per year, which is largely increased by the opportunities for advantageous investment; or who have been given the management of estates of many millions, upon the income of which they receive ten per cent, which rapidly leads on to fortune. Not one of these positions is

obtained or held because of an intimate knowledge of the law alone, but because the holder has also a business experience and capacity that entitles him to all that he receives. Such opportunities and demands will continue to increase, and the lawyer who will be most sought is he who has also a practical knowledge of business principles.

A simple instance may be given illustrating a greater necessity for business foresight than knowledge of the law. The lawyer has trust funds to manage. His first desire is that the investment shall be safe, and next that it shall earn a fair rate of interest. Government, state, and municipal bonds return from about three per cent. to less than two per cent., which renders them unsatisfactory in many instances. First mortgages on improved real estate pay from four per cent. to five per cent., and are a favorite investment. The drawing of the mortgage and the strictly legal work connected with the instrument is a very simple matter, but the business judgment necessary in examining the property is far more important. Most mortgagors in our large cities are real estate speculators, and, desiring to borrow as much as possible, will resort to all means to accomplish that end. The lender must rely upon his own judgment, and very many conditions and circumstances enter into its formation.

The bond is not to be considered, for the bondsman is almost invariably a dummy who is paid ten dollars for his trouble, and is entirely irresponsible; and even if he was responsible when he signed the bond, he might not be when the mortgage became due. The lender has nothing to look to for payment but the value of the property. The loan is usually for three or five years, and it is even more important to know what the property will be worth when the mortgage expires than it is when the application for the loan is made. The value of property in some localities in New York City has within five years fallen from twenty to forty per cent. If new business property is being examined, the question of whether it is well adapted for its purposes must be considered: does it meet modern requirements; is it too good or not good enough? Either may prove fatal to its success. Will the locality continue as a business center, or will trade move away? If it is an apartment house, it is necessary to consider whether the class for which it was built will continue to live in the vicinity; or will it change? Surroundings, objectionable features, and people, and numerous other considerations all enter into the question of the loan, and are vastly more difficult to dispose of than the mere legal examination of the title and the drawing and execution of the mortgage.

Men of important affairs are too busy to follow details. They present the skeleton of a proposed contract to their attorney with the remark: "These are the main features, put it into proper form, and see

that I am fully protected." The successful lawyer must catch the spirit of the contract, furnish the details, and supply omissions.

Business methods, conditions, and influences are continually changing; questions arise which have no precedent, vast interests are involved, and mistakes are expensive. If advice is to be valuable these must be understood. The craze for the indiscriminate combination of business enterprises during recent years, with the clumsy and unbusiness-like methods pursued, the result of bad advice, poor judgment, and the desire for speculative gain, has laid the foundation for years of employment for the thoughtful lawyer with keen business capacity, who will be called upon to reorganize and correct the mistakes that have been made. Many other instances can be readily supplied. A business instinct and experience is always desirable, regardless of the nature of one's practice, and is absolutely necessary for success in most branches of the law:

CALENDAR (Old English *Calend*, a month).—An orderly arrangement of the divisions of time, adapted to the purposes of civil life, as years, months, weeks, and days; also a register of the year, with its divisions; an almanac. In reckoning time, the month seems to have been suggested by the period of the moon's revolution, in $29\frac{1}{2}$ days, and this method of computation was adopted in the Jewish and Greek calendars. This was, however, only a rough approximation to the true year, as we now understand it, and to adjust matters both Jews and Greeks, as well as the Romans after them (the Romans originally had a year of only ten months) intercalated a month from time to time to adapt the lunar to the solar year. In the year 46 B. C., Cæsar, with the assistance of an Alexandrian astronomer, made a reform in the Roman calendar. He effected this by making the year 46 B. C. ("the year of confusion," as it was called) consist of 445 days, and the succeeding year 365 days, with the exception of every fourth year, which was to consist of 366 days. This change is known as the Julian Calendar, but as it was not strictly accurate, even with Cæsar's reconstruction of the months and their altered number of days, and his transferring of the beginning of the year from Mar. 1 back to Jan. 1, a later change took place in the era of Pope Gregory XIII., known as the new style, or Gregorian Calendar, when ten days were dropped and the calendar was made more in harmony with the seasons and the true year. A change in the calendar was made in France during the Revolution, but this was discontinued in 1805, and the Gregorian Calendar method was resumed.

CALENDAR — *Roman Year*.—The new year of the Romans began in March. This made September, October, November, and December

the seventh, eighth, ninth, and tenth months respectively, and their names are derived from the corresponding Latin numerals.

Up to the time of the Emperor Augustus the fifth and sixth months of their year were called Quintilis and Sextilis; meaning fifth and sixth. These were changed to Julian and Augustus in honor of the Cæsars. The first day of the Roman month was called the "Kalends." Whence we get our word Calendar. The "Nones" fall on the seventh day of March, May, July, and October, and on the fifth of the other months. The "Ides" came eight days after the "Nones." They reckoned the other days of the month as so many days before the Kalends, Nones, or Ides. The Ides of March, the day upon which Julius Cæsar was assassinated, was the fifteenth of March. December 31st was "the day before the Kalends of January"; but by a peculiar and confusing method of including both days involved the 30th of December was not the "second" but the "third day before the Kalends of January."

The Greek month had no Kalends, and when a Roman wanted to name an indefinite date he would jokingly say that it would occur on the "Greek Kalends," which meant never. Rather akin to our method of saying that "to-morrow never comes."

Russian Year.—This varies little of ours except that they have retained the old style of computation which makes all their dates thirteen days later. The Russians have shown great conservatism in refusing to change their dates to correspond to the rest of Europe.

ADVENT.—The space of four weeks immediately preceding Christmas. It commences on the Sunday nearest St. Andrew's Day (Nov. 30).

ALL SAINTS' DAY or ALL HALLOWS (Halloween).—A festival to commemorate Saints and Martyrs not honored by the assignment of an especial day. Begun by Pope Boniface IV., about 607, established by Pope Gregory IV. (about 830).

ALL SOULS' DAY.—(Nov. 2) A festival of the Roman Catholic Church, to commemorate the souls of the faithful.

ANDREW, ST.—The first disciple. He is the principal patron of Scotland. Tradition says he was crucified at Patræ, now Patras, in Greece, upon a cross of this form, X (crux decussata), called St. Andrew's Cross. It is a white saltire on a blue ground. Combined with the crosses of St. George of England and St. Patrick of Ireland it forms the Union Jack. St. Andrew is also much venerated in Russia, and the order of St. Andrew, founded by Peter the Great in 1708, is the highest in the state. St. Andrew's Day falls on Nov. 30.

ANNO DOMINI (A.D., the year of our Lord).—The Christian era begins with the first day of January in the fourth year of the 194th Olympiad (Greek mode of estimating time); or in the 753d year of the building of Rome (according to the Roman method). Dionysius Exiguus, or Denys Le Petit, first introduced the era about the year 532. Charles III., of Germany, was the first to use the phrase "in the year of our Lord" in connection with his reign, in 879.

ANNUS MIRABILIS (The year of wonders).—A year (1666) noted for the plague, and the great fire in London, and the English victory over the Dutch—the subject of a poem by John Dryden.

APRIL.—The Romans gave the name Aprilis to the fourth month. It is derived from the verb *aperire* "to open," perhaps because the buds began to open at this season. The custom of playing little tricks on the first day of this month is almost universal. It is believed that the custom spread to England and Germany from France, but its origin is doubtful.

ARBOR DAY.—A day set apart with the object of restoring forest trees. It was first recommended by Gov. Morton, of Nebraska, to raise a barrier of trees to protect the land from the winds of west and south. Most of the states have legalized the holiday. The public schools have fostered the idea.

ASH WEDNESDAY.—The first day of Lent; so called from the religious custom of strewing ashes on the head as a sign of penitence.

BARTHOLOMEW FAIR.—Originally the great cloth fair or market of the kingdom. Held annually on St. Bartholomew's Day at Smithfield, London, until 1840, then removed to Islington, where it ceased to exist in 1855.

BLACK FRIDAY.—(1.) In England, Good Friday is so called because on that day the vestments of the clergy are black. 2. Also in England, Dec. 6, 1745, the day on which news reached London that Charles Edward, the Young Pretender, had reached Derby. Another Black Friday in England was the day of the great commercial panic caused by the failure of the banking house of Overend and Gurney, May 11, 1866. In New York, a memorable Black Friday was Sept. 24, 1869, when a great panic was caused by reckless gold speculation in New York City.

CALENDAR-AMENDMENT ACT.—In 1751 an act of British Parliament was passed, to take effect in 1752, which made some changes in the mode of reckoning time. January 1, 1752, was made the beginning of the year, instead of March 25 or Lady Day. The 11 days excess was gotten rid of by making Sept. 3, 1752, the 14th. It is also known as Lord Chesterfield's Act.

CANDLEMAS DAY (Feb. 2).—To commemorate the purification of the Virgin.

CARNIVAL.—A season of revelry, masquerading, and buffoonery in Italy, which in modern times is restricted to the eight days before Ash Wednesday. Originally it began on the feast of Epiphany or Twelfth Day — January 6 — and ended on Shrove or Pancake Tuesday (Lent). During the middle ages, banquets of rich meats and drinking bouts were the chief attractions. Carnivals are widely held in Germany, in the cities of the Rhine provinces; in the south of France, and throughout Italy. In these sections and also in Venice the Carnival is still a popular festival. At Rome, on the occasion of a carnival, the streets are *en fête*, and much fun and entertaining frolic mark the celebration.

CENTURY (Latin, *centuria*).—A term, in our day, mostly used to denote a period of 100 years. In Roman times, the term indicated a civil division of the people formed for the purpose of voting; it also meant a company of 100 men (*centum*, a hundred) in the Roman army, or a division consisting originally of a hundred. As used to denote a period of time (a 100 years), we have come to reckon a century (such, for instance, as the 19th century), as beginning with Jan. 1, 1801, and ending Dec. 31, 1900. In common speech, we also apply the period denoting a century to cover a 100 years of literature, of art, of music, of missionary work, as well as of history, politics, the Christian centuries, in contrast with the earlier era before the birth of Christ. The latter we indicate by the letters *B. C.* (before Christ) or *A. D.* (*Anno Domini*) in the year of our Lord. The term is known also in botany, in the case of the Agave or Century plant, formerly supposed to flower but once in a 100 years.

CHINESE YEAR.—The year is lunar, each month coming in with the new moon. The difference between the lunar and solar year is made up by adding one month in every thirty. The greatest feast is New Year's Day, which may fall on any day between January 21 and February 28. The festival lasts three or four days. Visits are exchanged, all debts paid up, if possible. If a Chinaman is insolvent he appears before his creditors upon the New Year's Day and states the fact, when all debts are discharged. The fifth day of the fifth month is the dragon festival. The fifteenth day of the eighth month is a moon festival, corresponding somewhat to the "harvest moon." The Winter solstice, or December 21, is an official holiday when the Emperor is worshiped. The birthday of the Emperor is a compulsory holiday of rejoicing, while that of the Dowager Empress is an official holiday only.

CHRISTMAS (Dec. 25).—The day on which the nativity of Jesus Christ is observed. The real date of our Lord's birth is not known; by the Eastern Church, Jan. 6 was held in commemoration as that both of the birth and the baptism of Christ; but later on (in the 4th century), the date adopted was that which we now commemorate, the observance being ascribed first to Julius, bishop of Rome. The festival of Christmas was celebrated with great feasts alike by Romans, Celts, and Germans, Yule-tide being a season of rejoicing. The heathen elements of the festival were gradually dropped, as the Church sought to introduce, in lieu of them, its liturgy and the ritual adopted by both the Roman and Anglican (Protestant) Episcopal churches. To add to the church ritual devised for the season came the Christmas carols and "manger songs," and such customs as are now connected with the day socially, with its family reunions, feasts, and gifts. The Christmas tree, with its lights, hanging toys, and Santa Claus visits, as a festival of St. Nicholas dear to childhood's days, are additional features of the season which almost all the world now commemorates, to which has to be added "the Christmas-box"—the money-gifts distributed among children, servants, employees, and the poor and needy on the glad return of the day.

CLOCK.—A machine for measuring and marking the flight of time. In early times, the sun-dial was the apparatus in common use for registering the progress of the sun through the sky by a shadow cast upon a graduated plate. This, however, was useless at night and on cloudy days. The hour-glass was another early contrivance. With the invention of the escapement and the regulation of its action by means of a pendulum, the construction of clocks may be said to begin. We owe the idea of a pendulum clock to Huyghens, a Dutch physicist, who set the escapement or crown wheel horizontal, which had hitherto been set vertical, and attached the pallets to the horizontal rod from which the pendulum hung. In large-sized clocks, the moving power is a raised weight; in chronometers, watches, and small clocks, the power is derived from a coiled, elastic, highly tempered spring. In the former, the weight in descending, and in the latter, the spring in uncoiling, sets a cylinder in rotation, and this rotary motion is transmitted through wheels and pinions to the hands on the dial-plate, which by their motion indicate the hours, minutes, and seconds. In both cases, the motive power must be properly regulated so as to indicate accurate time. When the moving power is a main-spring (contained in a cylindrical box) the motion is regulated by the escapement and balance-wheel, and for greater accuracy by a contrivance known as the fusee. The varieties of clocks, chronometers, and

watches are now many and varied; the striking clock is familiar to everyone, and is fitted with a bell struck by a hammer at certain equal intervals, generally an hour. Driving clocks, electric clocks, and musical clocks are other types and fashions of time-pieces familiar to us to-day.

CORPUS CHRISTI DAY.—A festival of the Roman Church, in honor of the Consecrated Host.

CURFEW (Fr. *couvre-feu*, cover fire).—The evening hour when, according to an old English custom, the people were notified, by the ringing of a bell, to cover up their fires, extinguish lights, and retire for the night. The practice is referred to in many English poems, in a lyric of Longfellow's, and especially in the first line of Gray's "Elegy":—

"The curfew tolls the knell of parting day."

William the Conqueror, it is said, introduced the practice, to prevent the assembling of people, under cover of night, for the purpose of hatching rebellion. It is, however, more likely to have originated as a precaution against fires, which were more common and desolating in early times, when houses were often flimsy in structure, and the machinery for extinguishing fires did not then exist, in the efficient scale of to-day. The curfew, or evening-bell, is still rung in many towns and villages of modern England.

DATE.—In 1582 it was discovered that there was a discrepancy in the mode of reckoning time by the Old Style or Julian Calendar and that this was caused by the fact that there was a difference of 11 minutes between the year as fixed by Julius Cæsar and the solar year. This had amounted to 10 entire days. To correct this, Pope Gregory XIII. ordered that the year 1582 should consist of only 356 days by causing the 5th of Oct. to become 15th of Oct. of the New Style or Gregorian Calendar.

DATE-LINE, INTERNATIONAL.—In sailing westward around the world the traveler is each day a little behind the sun in point of time, so that the sum of these differences which he has consumed each day amounts to an entire day. It is necessary that he drop 24 hours somewhere that he may overtake the sun. In traveling eastward the reverse is the case, and he must add a day to make his time accord with the calendar. It has been agreed by nations that the 180th meridian is the best place at which to rectify the loss or gain. The international date-line does not follow the 180th meridian exactly, as it varies slightly to accommodate conditions which have existed in some of the islands adjacent to it. Thus, the Sandwich Islands on

one side of the line and the Society Islands on the other, though only a few degrees apart, observe different Sabbaths; because the missionaries sailing to these islands from opposite directions neglected to rectify their calendars.

DECORATION DAY.—The 30th of May, a national holiday, set apart for decorating with flowers the graves of men who served in the army or navy of the U. S., in memory of their patriotic sacrifices and sufferings and their glorious deeds. This beautiful custom was established soon after the organization of the Grand Army of the Republic, by the survivors of the Civil War. Its purpose was especially to honor the hundreds of thousands of Union soldiers who were killed in battle or died of disease during the war, but the scope of the ceremony was naturally and properly enlarged so as to include the graves of soldiers who had served in other wars and of those who died from time to time. The people of the South testify to their remembrance of those who served their cause, by strewing flowers upon the graves of the Confederate dead. The passions of war have so wholly disappeared that the resting-places of both Union and Confederate soldiers are decorated at the same time, by survivors of the hostile armies, side by side. Many civic orders, such as the Masons, Odd Fellows, Knights of Pythias, etc., have adopted the custom and each year decorate the graves of members who have died.

DERBY DAY.—A race for three-year-olds held annually at Epsom. It was instituted by the Earl of Derby in 1780. The races are held on the last Wednesday in May. The 2,000 guineas, the St. Leger, and the Derby form "the triple crown," which has been won by only five horses.

DIES IRÆ.—A famous medieval hymn on the Last Judgment, the composition, it is believed, of Thomas of Celano, a native of Abruzzi, and friend of St. Francis of Assisi, who died in 1255. Sir Walter Scott has introduced part of it into his "Lay of the Last Minstrel":—

"On that day, that day of ire,
Saith the King of Wisdom's sire,
Earth shall melt with fervent fire."

EASTER.—The first Sunday after the full moon which occurs on or next after March 21. If the full moon happen on a Sunday, Easter is the following Sunday. The festival commemorates the Resurrection. The Anglo-Saxons, before their conversion to Christianity observed a festival of spring and the beginning of the year, which they called the festival of *Ostern* or of *Eastre*, the goddess of the morning of the East, or of spring.

EQUINOXES.—The two points on the equator where the sun in its apparent course through the heavens crosses. The days and nights at these periods are nearly equal. The vernal or spring equinox occurs on Mar. 20; and the autumnal equinox takes place Sept. 20.

FEBRUARY.—The second month of our year, has 28 days, except in leap year, when it has 29. It had among the Romans 29 days, but when the Senate decreed that the eighth month should be called August, in honor of the Emperor Augustus, a day was taken from February and added to August, which had only 30, that it be not inferior to July.

FISCAL YEAR.—The financial year of the treasury of a government; the period at the end of which all public or government accounts are made up and balanced. The fiscal year of the U. S. Government begins July 1 of each year and ends June 30 of the following year.

FOREFATHERS' DAY.—The name given to the anniversary of the landing of the Pilgrim Fathers at Plymouth, Mass., Dec. 21, 1620. The date by the Old Style Calendar is Dec. 11. In 1769, the Old Colony Club was formed by seven citizens of Plymouth to celebrate "the landing of our ancestors in this place," but in adjusting the date, to the New Style or Gregorian Calendar, the Club by mistake established the anniversary on Dec. 22 instead of Dec. 21. New England Societies have been established in many of the states and the celebration of Forefathers' Day is becoming more general.

FRENCH REVOLUTION YEAR.—In the abolition of all the reminders of the past, the French ordained that a new era should begin with the Autumnal Equinox, September 22, 1792. The year was divided into twelve months of thirty days each. Each month was divided into three decades of ten days each. The months were called (1) Vendemaire, or Vintage month, (2) Prumaire, or Foggy month, (3) Frimaire, or Sleety month, (4) Nivose, or Snowy month, (5) Pluviose, or Rainy month, (6) Ventose, or Windy month, (7) Germinal, or Budding month, (8) Floreal, or Flowering month, (9) Prarial, or Pasture month, (10) Messidor, or Harvest month, (11) Thermidor, or Hot month, (12) Fructidor, or Fruit month. To make up the 365 days, five days were added at the end of September. These were: Primidi, dedicated to Virtue; Duodi, to Genius; Tridi, to Labor; Quartidi, to Opinion; Quintidi, to Reward. On the leap year a sixth day or Olympic, called the day of the Revolution, was added. Every tenth day was a special fête dedicated to some moral attribute or trait of character. The Gregorian Calendar was restored on January 1, 1806.

GOOD FRIDAY.—The Friday before Easter; a fast of the church in commemoration of the Crucifixion.

GREGORIAN CALENDAR.—Pope Gregory XIII., in 1582, issued a bull correcting the error of the Julian Calendar. It was adopted by England in 1752. All dates previous to that period are written Old Style, and all afterward New Style. The Julian Calendar considered the year to consist of $365\frac{1}{4}$ days. Its exact length was found to be 365 days, 5 hours, 49 minutes and 12 seconds. Up to the time of its adoption in England this error of 26 seconds every year had amounted to eleven days. Russia has not yet adopted the Gregorian method, consequently the year is now 12 days behind the Gregorian method. It is also provided that a leap year of 366 days shall be such years as are divisible by 4 and also by 400 but not by 100.

HOLIDAYS IN THE VARIOUS STATES, LEGAL.—

JAN. 1. NEW YEAR'S DAY: In all the states (including the District of Columbia) except Massachusetts, Mississippi, and New Hampshire.

JAN. 8. ANNIVERSARY OF THE BATTLE OF NEW ORLEANS: In Louisiana.

JAN. 19. LEE'S BIRTHDAY: In Florida, Georgia, North Carolina, South Carolina, and Virginia.

FEB. 12. LINCOLN'S BIRTHDAY: In Connecticut, Illinois, Minnesota, New Jersey, New York, North Dakota, Pennsylvania, and Washington (state).

FEB. (Third Tuesday). SPRING ELECTION DAY: In Pennsylvania.

FEB. 22. WASHINGTON'S BIRTHDAY: In all the states (including the District of Columbia), except Mississippi.

FEB. 27. MARDI GRAS: In Alabama and the parish of Orleans, Louisiana.

MAR. 2. ANNIVERSARY OF TEXAN INDEPENDENCE: In Texas.

APRIL 4. STATE ELECTION DAY: In Rhode Island.

APRIL 6. CONFEDERATE MEMORIAL DAY: In Louisiana.

APRIL 13. GOOD FRIDAY: In Alabama, Louisiana, Maryland, Pennsylvania, Tennessee.

APRIL 19. PATRIOTS' DAY: In Massachusetts.

APRIL 21. ANNIVERSARY OF THE BATTLE OF SAN JACINTO: In Texas.

APRIL 26. CONFEDERATE MEMORIAL DAY: In Alabama, Florida, and Georgia.

MAY 10. CONFEDERATE MEMORIAL DAY: In North Carolina and South Carolina.

MAY (Second Friday). CONFEDERATE DAY: In Tennessee.

MAY 20. ANNIVERSARY OF THE SIGNING OF THE MECKLENBURG DECLARATION OF INDEPENDENCE: In North Carolina.

MAY 30. DECORATION DAY: In all the states and territories (and District of Columbia), except Alabama, Arkansas, Florida, Georgia, Idaho, Louisiana, Mississippi, New Mexico, North Carolina, South Carolina, Texas, and Virginia.

JUNE 3. JEFFERSON DAVIS'S BIRTHDAY: In Florida and Georgia.

JULY 4. INDEPENDENCE DAY: In all the states and the District of Columbia.

JULY 24. PIONEERS' DAY: In Utah.

AUG. 2. ELECTION DAY: In North Carolina—for state officers, legislature, county officers, etc.

AUG. 16. BENNINGTON BATTLE DAY: In Vermont.

SEPT. 3. LABOR DAY: In all the states and territories (and District of Columbia), except Arizona, Arkansas, Louisiana, Mississippi, Nevada, New Mexico, North Carolina, North Dakota, Oklahoma, and Vermont. Is observed in Wyoming, but is not a legal holiday.

SEPT. 6. LABOR DAY: In North Carolina.

SEPT. 9. ADMISSION DAY: In California.

NOV. 1. ALL SAINTS' DAY: In Louisiana.

NOV. GENERAL ELECTION DAY: In Arizona, California, Colorado, Idaho, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Minnesota, Missouri, Montana, Nevada, New Hampshire, New Jersey, New York, North Dakota, Ohio, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, West Virginia, Washington, Wisconsin, and Wyoming, in the years when elections are held in these states. In 1900, the date was November 6.

NOV. 25. LABOR DAY: In parish of Orleans, Louisiana.

NOV. THANKSGIVING DAY (either the fourth or last Thursday in November, as the President may determine): Is observed in all the states, and in the District of Columbia, though in some states it is not a statutory holiday.

DEC. 25. CHRISTMAS DAY: In all the states and in the District of Columbia.

Sundays and fast days are legal holidays in all the states which designate them as such.

There are no statutory holidays in Mississippi and Nevada, but by common consent the Fourth of July, Thanksgiving, and Christmas are observed as holidays in Mississippi. In Kansas, Decoration Day,

Labor Day, and Washington's Birthday are the only legal holidays by legislative enactment; other legal holidays are so only by common consent. In New Mexico, Decoration Day, Labor Day, and Arbor Day are holidays when so designated by the governor.

ARBOR DAY is a legal holiday in Arizona, Minnesota, North Dakota, Wisconsin, and Wyoming, the day being set by the governor; in Texas, February 22; in Nebraska, April 22; Montana, May 8; Utah, April 15; Rhode Island, May 11; Florida, first Friday in February; Georgia, first Friday in December; Colorado (school holiday only), third Friday in April; Idaho (school holiday only), first Friday after May 1.

Every Saturday after 12 o'clock noon is a legal holiday in New York, New Jersey, North Carolina, Pennsylvania, Maryland, Tennessee, Virginia, and the city of New Orleans, and in Newcastle County, Del., except in St. George's Hundred; in Louisiana and Missouri in cities of 100,000 or more inhabitants; in Ohio in cities of 50,000 or more inhabitants; and June 1 to August 31 in Denver, Col. In the District of Columbia for all purposes respecting the presentation for payment or acceptance, or the protesting of all commercial paper whatsoever. In Connecticut and Maine, banks close at 12 noon on Saturdays.

There is no national holiday, not even the Fourth of July. Congress has at various times appointed special holidays. In the second session of the Fifty-third Congress it passed an act making Labor Day a public holiday in the District of Columbia, and it has recognized the existence of certain days as holidays, for commercial purposes, but, with the exception named, there is no general statute on the subject. The proclamation of the President designating a day of Thanksgiving only makes it a legal holiday in those states which provide by law for it.

HOLIDAYS, OLD ENGLISH.—

These holidays, with their names, had their origin in medieval England when the state religion was that of the Church of Rome, and they are still observed generally in some parts of England, Scotland, and Ireland.

JAN. 6. TWELFTH DAY (or Twelfth-tide): Sometimes called old Christmas Day, the same as Epiphany. The previous evening is Twelfth Night, with which many social rites have long been connected.

FEB. 2. CANDLEMAS: Festival of the Purification of the Virgin. Consecration of the lighted candles to be used in the church during the year.

FEB. 14. OLD CANDLEMAS: St. Valentine's Day.

MAR. 25. LADY DAY: Annunciation of the Virgin. April 6 is old Lady Day.

JUNE 24. MIDSUMMER DAY: Feast of the Nativity of John the Baptist. July 7 is old Midsummer Day.

JULY 15. ST. SWITHIN'S DAY: There was an old superstition that if rain fell on this day it would continue forty days.

AUG. 1. LAMMAS DAY: Originally in England the festival of the wheat harvest. In the church, the festival of St. Peter's miraculous deliverance from prison. Old Lammas Day is August 13.

SEPT. 29. MICHAELMAS: Feast of St. Michael, the Archangel. Old Michaelmas is October 11.

NOV. 1. ALLHALLOWMAS: All Hallows, or All Saints' Day. The previous evening is All Halloween, observed by home gatherings and old-time festive rites.

NOV. 2. ALL SOULS' DAY: Day of prayer for the souls of the dead.

NOV. 11. MARTINMAS: Feast of St. Martin. Old Martinmas is November 23.

DEC. 28. CHILDERMAS: Holy Innocents' Day.

Lady Day, Midsummer Day, Michaelmas, and Christmas are quarter (rent) days in England, and Whitsunday, Martinmas, Candlemas, and Lammas Day in Scotland.

Shrove Tuesday, the day before Ash Wednesday, and Maundy Thursday, the day before Good Friday, are observed by the church. Mothering Sunday is Mid-Lent Sunday, in which the old rural custom obtains of visiting one's parents and making them presents.

INAUGURATION DAY.—The selection of Mar. 4, as the day for the inauguration of the President and Vice-president of the U. S., dates back to 1788. After the ratification of the Constitution by the several states, the Congress of the old Confederation fixed upon the first Wednesday in Jan., 1789, for the choice of electors, the first Wednesday in Feb. for the popular voting by the electors, and the first Wednesday in Mar., for the inauguration of the President. The latter day fell on the 4th in that year, and the twelfth amendment to the Constitution settled upon this as the legal date. Washington's first inauguration was, however, on April 30, 1789. Measures have been frequently introduced, in both houses of Congress, for an amendment to the Constitution changing Inauguration Day to a later date in the year.

JANUARY.—The first month of the year, was held sacred to the Roman god Janus. This month and February were added to the calendar by Numa.

JEWISH CALENDAR.—The Jewish Calendar year is both solar and lunar. It laps over the Christian year. Thus 1904 is a part of the Jewish year 5664 and of 5665. The year may consist of 353, 354, 355, 383, 384, or 385 days. A cycle is composed of 19 years, of which the third, sixth, eighth, eleventh, fourteenth, seventeenth, and nineteenth are leap years. When a month is added it is called Ve-Adar and always consists of thirty days. The Jewish months are 1. Tishri, 2. Heshvan, 3. Kislev, 4. Tebeth, 5. Sebat, 6. Adar, 7. Nisan, 8. Igar, 9. Sivan, 10. Tamuz, 11. Ab, 12. Elul. The rules for the falling of feasts and fasts are very strict and these days must never conflict, so that there are fourteen different kinds of years to keep count of. The observation of each new moon is called Rosh-Chodesh. The fast of Purim commemorates the deliverance of the Jews by Esther from the massacre planned by Haman. The feast of Ab. is in commemoration of the Destruction of the Temple. The new year is Rosh-Hashonah. Yom Kippur is the Feast of Expiation.

JULIAN CALENDAR.—The solar Calendar was adjusted by Julius Cæsar so that the year was composed of $365\frac{1}{4}$ days. As this made the year too long by a few minutes the re-adjustment was made by the Gregorian Calendar.

JULY.—The seventh month of the year, consisting of thirty-one days. It was named after Julius Cæsar, by whom it was introduced into the calendar.

LABOR DAY.—The first Monday in September has been made a holiday in thirty-six states, and by the U. S. in the District of Columbia. It was observed first in Col. in 1887. On that day meetings for the discussion of labor questions are held and there are usually parades, picnics, and dances.

MARCH was the first month of the Roman year and was so considered in England until the change in the calendar in 1752.

MOHAMMEDAN YEAR.—The Mohammedan era begins with July 16, 622 A. D., which is called the Hegira or flight of Mohammed from Mecca to Medina. The year is absolutely lunar. The new moon is always the first of the month. Thirty years form a cycle, of which the second, fifth, seventh, tenth, thirteenth, sixteenth, eighteenth, twenty-third, twenty-fourth, twenty-sixth, and twenty-eighth are leap years of 355 days, while the common year has only 354. The Mohammedan Sabbath is Friday. The three great holidays of the year are: (1) The whole of the month of Ramadan or the ninth month of the

year, when eating, drinking, or enjoyment is abstained from during the hours of sunlight. It closes with the great feast of Bairam. Seventy days later the little Bairam is celebrated for four days. The twelve months of the year are: Moharrem, Safer, Rebi ul-Evel, Rebi ul-Ahir, Djemasi ul-Evel, Djemase ul-Aher, Redsheb, Shaban, Ramadan, Sheval, Zilhidge. Each month has twenty-nine days, except in leap year, when one day is added to the last month.

NOVEMBER (Latin, *novem*, nine).—In ancient times it was the ninth month; but became the eleventh, as now, upon the addition in 713 B. C., of January and February.

OCTOBER.—The tenth month of the year; has 31 days. It was the eighth month of the so-called year of Romulus, but became the tenth when Numa changed the commencement of the year to the first of January.

OLD STYLE.—Under Pope Gregory, the calendar was altered in order to rectify certain errors; in the new calendar, 10 days were omitted, and Oct. 5, 1582, became Oct. 15. The new style was adopted by most of the leading European countries within a few years following; Great Britain, however, not making the change until 1752. Russia, Greece, and some of the Eastern countries, retain the old style.

OLYMPIC GAMES, THE.—They were the greatest of the four Panhellenic festivals of the ancient Greeks and served as a division of time into Olympiads. They were celebrated at intervals of four years.

PANICS, THE GREAT FINANCIAL.—

1814, England, 240 banks suspended.

1824, Manchester, failures, 2,000,000 sterling .

1831, Calcutta, failures, \$15,000,000.

1837, United States, "Wild Cat" crisis, all banks closed.

1839, Bank of England saved by Bank of France. Severe also in France where 93 companies failed for \$6,000,000.

1844, England. State loans to merchants. Bank of England reformed.

1847, England, failures, \$20,000,000, discount 13 per cent.

1857, United States, 7,200 houses failed for \$111,000,000.

1860, London, Overend-Gurney crisis, failures exceeded \$100,000,000.

1869, Black Friday in New York (Wall Street), September 24.

SANTA CLAUS, or KLAUS (an abbreviated form of the Dutch Saint Nikolas), is the Dutch name of Saint Nicholas, patron saint of children and dispenser of gifts on Christmas eve. St. Nicholas lived about the year 300 A. D. He was a bishop of Asia Minor, and is a prominent saint in the Greek church, his festival being celebrated Dec. 6.

ended with the last day of the year 100. It could not close with the last day of the year 99, for 100, not 99, years make a century.

VALENTINE'S DAY, SAINT.—The 14th of Feb. The feast day of St. Valentine, a Christian martyr, who was executed in Rome 270 A. D. The custom of sending love messages or valentines on this day has no direct connection with the feast of the saint, but is of very ancient origin. The 15th of Feb. was especially observed by the Romans during the celebration of the Lupercalia, which covered a period during the middle of the month.

WEDDING ANNIVERSARIES AND THEIR APPROPRIATE GIFTS.—The society titles of wedding anniversaries are: 1st, cotton; 2d, paper; 3d, leather; 5th, wooden; 7th, woolen; 10th, tin; 12th, silk and fine linen; 15th, crystal; 20th, china; 25th, silver; 30th, pearl; 40th, ruby; 50th, golden; 60th, diamond.

CALLIGRAPHY.—A term derived from the Greek, signifying beautiful writing, and which to-day we apply to fine and elegant penmanship. Calligraphists was the appellation given to the monks and learned scribes who before the invention of printing copied rare manuscripts and elaborately embellished them. This work was done largely by monks and schoolmen during the Middle Ages, and many specimens of their art in manuscripts have come down to us. In these MSS. the color work is of a rich order, especially in the initial letters, which are done in vermilion and gold, as well as in the border decorations and other illuminated parts. In modern penmanship, the attraction is rather in the fine scroll work and other ornamental devices that embellish the page.

CALL LOANS.—Money loaned subject to the call of the lender.

CAPITALS, RULES FOR THE USE OF.—The improper use of capitals or their omission, in a business or social letter, is a common fault in composition and should be guarded against. Sometimes more capitals are used than is necessary. The great number of words begin with small letters. Where capitals are to be used will be seen from perusal of the following rules:—

All proper names (names of persons, places, and the principal words in the titles of books) should begin with a capital letter.

Every word that denotes the Deity should begin with a capital, and all words denoting religious denominations, should begin with capitals.

The first word of every sentence and the first word of every line of poetry should begin with a capital letter.

The months of the year and the days of the week all begin with capitals.

The words East, West, North, and South, and their compounds and abbreviations, such as So., No., Southeast, usually begin with capitals, especially where they specifically denote a section of the country, as So. or South Dakota, No. or North Carolina.

The pronoun I and the interjection O are always capitals.

Letters standing for words (in abbreviated form) are generally written as capitals, as A. D. (*Anno Domini*), the year of our Lord, U. S. (United States), W. T. (Washington Ter.).

All adjectives formed from proper names should begin with capitals, as American, English, Germanic, Dutch, Spanish, Russian; also all adjectives denoting a sect (religious body), or a religion—as Puritan, Catholic, Methodist, Mahommedan, Buddhist, Congregationalist, etc.

All proper nouns, and titles of office, honor, and respect, should begin with capitals, as His Excellency, The Honorable, His Honor the Mayor, The President of France, The Emperor of Germany, John, Robert, Harriet Beecher Stowe, United States Army, Navy, Supreme Court, Governor, Sir, Sire, Your Grace, Most Worshipful, Madame, Your Royal Highness, His Eminence the Cardinal, etc.

Words that denote the leading subjects of chapters, articles, and paragraphs, also words denoting great events, eras of history, noted written documents and instruments, and extraordinary physical phenomena, should begin with capitals.

Common nouns where personified, as War, Peace, Faith, are usually capitalized; also all emphatic and prominent words in the titles of books and headings of chapters.

CHARTER.—The name applied to a grant of land or of special privileges, made by a government or ruler to a company—a body of men, or an individual for a term of years. In American law, a charter is a written grant from the sovereign power conferring rights or privileges upon a municipality or other corporation. The term is generally applied to the letters patent or articles of association sanctioned by statute creating a corporation as a city, college, stock company, benevolent society, or social club. In the early history of America, European rulers, claiming sovereignty by right of discovery, issued charters granting land for colonization, such as the charters of the Virginia Company, Plymouth, Massachusetts Bay, etc.

CHARTER PARTY.—A written agreement between the owner, master, or agent of a vessel and the person who hires or freights it.

CIPHER.—In arithmetic, the character 0, standing by itself, expresses nothing, but when placed to the right of a number, say 25, increases its value ten fold. It is now loosely applied, also, to any of the nine figures. Metaphorically, its primary meaning (a cipher)

denotes a nonentity, or nobody. The cipher is used also to designate the interweaving of the initials of a name, as a monogram, or private mark; and the term has, moreover, come to be a name for secret writing, in the transmission of dispatches, the reading of which is known only to the initiated.

CIPHER CODE.—A secret or disguised manner of writing. Its most frequent use is to cheapen cost of cables and telegrams, as one word stands for several, or for a whole phrase.

CLEARANCE.—A certificate from a custom-house giving permission to a vessel to sail.

CLEARING HOUSE.—An institution organized by banking houses, railroad companies, persons or corporations that have credit transactions with one another, to facilitate periodical settlements. Before the advent of the clearing house, accounts incidental to and resulting from such transactions were adjusted, in the case of banks every morning; in other cases at least once a week. This obliged each bank to employ a messenger, who had to visit every other bank with which it dealt and pay or receive the difference between the credit and debit sides of the accounts. This system involved labor and risk, now almost wholly eliminated by the clearing house, where all the differences of the institutions that are members of it are every day, quickly, accurately, and conveniently adjusted. The London clearing house is about 100 years old, and the New York clearing house, which does the largest business of any in the world, opened its doors Oct. 11, 1853. About 70 banks clear through the latter and the accounts of each are settled daily between 10 and 11 A. M. The debtor banks must pay to the clearing house the amounts they owe in coin or legal-tender notes each day by 1:30 P. M. and the creditor banks at once receive the amounts due them from other banks or certificates of credit for like amounts. The banks that are in the clearing house may avert financial crises by pooling their reserves and accepting certificates instead of cash. This was done early in the Civil War, to enable the Government to carry on its operations, and the same device was employed to check the panics of 1873, 1884, 1890, and 1891. Clearing houses are now to be found in all the large cities of the U. S., and are used quite as freely by commercial concerns in general lines of business as by strictly financial institutions.

THE GIFTS OF A SUCCESSFUL COLLECTOR

THE business of making collections has a great many disadvantages, and is probably the least attractive of the vocations open to young men. It has to do with the unpleasant side of life. The collector is met with frowns and his presence is never congenial, and yet, in spite of all its drawbacks, it is a good field for the development of self-control, persistence, and the ability to judge human nature. More than this, it is a splendid school for the development of good nature. To be a successful collector, one must be thoroughly good natured. Almost every human being who has arrived at the age of maturity, has had experience with collectors. The man who has always had enough money to pay his bills without an effort, need not congratulate himself upon that fact, because there is a pleasure derived from exertion and self-denial in order to pay one's debts that elevates and broadens the character as few other things do. The average man, however, has more or less experience with collectors all through life, and the successes in this line of business, can be distinguished instantly from the failures.

The successful collector will greet the debtor pleasantly, and in a respectful, courteous manner, ask for the payment of his claim, without an apology and without any insolence in his manner. If he understands his business, he can tell instinctively whether the person he is dealing with is making an honest effort to pay his obligations or not, and he will govern himself accordingly. If an appointment is made, he will keep that appointment, and if the debtor fails to make good his promise, the latter will feel under obligation to the collector, and if the collector has tact enough to give him the benefit of the doubt and make another appointment, he will probably succeed in getting more than could be gotten under any other circumstances.

Persistence should be the guiding principle of a collector's life, for there are many people who are like the unjust judge of old, who neither fear God nor regard man, but who cannot withstand the omnipresent, courteous, and respectful collector. While the business of collecting should not be chosen as a life-work, no young man should hesitate to accept a position which will enable him to become a first-class collector; for, in so doing, he will come in contact with all kinds of people, and will be compelled to acquire those qualities which will make him strong and capable.

A young lawyer often finds the making of collections a stepping-stone to a general practice. If his client be a merchant, and his work prove satisfactory, the chances are excellent that he will be intrusted with other legal work, including the making of investments. In the course of time, he is very likely to build up a practice which is comparatively free from litigated business, but which includes the far more lucrative branch of financing his clients and keeping them out of litigation.

Eighty per cent. of the whole volume of business in the United States is done on credit. A business man does not usually possess or employ more than one-fourth of the capital which his annual transactions indicate. He must turn over his capital several times a year in order to reach the larger volume of trade; and to enable him to do this his collections must be sharply made.

Of course, this is the reason for the existence of the large mercantile and collection agencies, which act for the business world as individual credit men and collectors do for single firms. Aside from failures, these great agencies encounter comparatively little dishonesty or debt evasion. Business honor makes the path of the trained collector far easier in commerce and trade than he finds it in private life. The bonding companies give another indication of the accuracy of business life. They report that only about three persons in every thousand among their customers are dishonest.

COMMISSION.—A sum allowed to a broker, agent, or commission merchant for the transaction of business. It is usually based upon a fixed percentage of the sum dealt with.

COMMON STOCK.—The ordinary shares of stock in an enterprise as distinguished from "preferred" or "founder's" stock.

CONSIGNEE.—The person to whom goods are delivered or transmitted.

CONSIGNMENT.—The goods sent or transmitted to an agent or consignee.

CONSIGNOR.—The person who delivers or transmits goods to an agent or broker.

CONSOLS.—English three per cent. annuities issued at various times and at last consolidated into one stock.

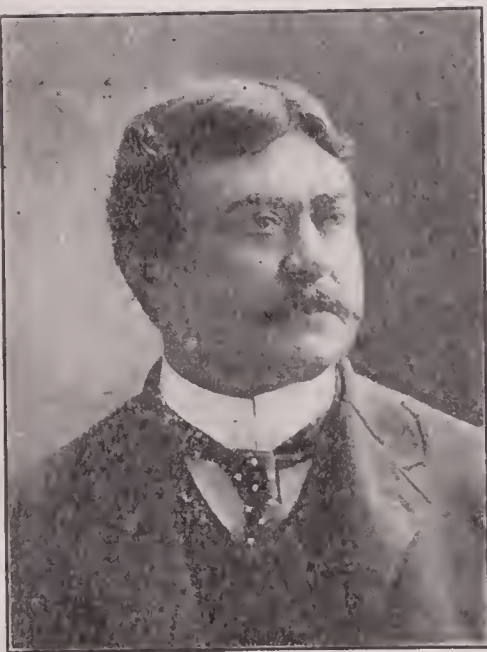
CONTRABAND GOODS are such as are prohibited to be imported or exported and are subject to seizure and confiscation if the attempt is made.

COPYRIGHT.—Copyright is the protection that the law affords to the product of a person's intellectual genius and industry in literature

and art. The first U. S. copyright law was passed by Congress in 1790, when that body enacted that copyrights should be granted to authors and patents to inventors. Under this act authors were given the exclusive right to their works for 14 years, with the right to renew the copyright for another term of 14 years. In 1831 the original copyright was made good for 28 years, the period of renewal remaining as before. In 1870 this latter right was extended to the widow or children of an author, who in his own lifetime, had received a copyright for an original term of 28 years. Under the international copyright law, passed in 1891, the privilege of American copyright was extended to authors of such countries as grant like privileges to American writers. Many writers of this country and of Europe have taken advantage of international copyright.

CREDIT AS CAPITAL

By JOHN GREENE
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IT is not meant by the collocation of terms in the title given above that credit is capital in the strict economic sense, or that it can be said that credit creates capital. Its real economic function is to facilitate the transference of capital, so as to secure in its employment the greatest degree of productivity. Without attributing to it any occult or magic power, it will be sufficient for the present purpose to recognize, with Ricardo, that credit supplies the means of making use of capital already existing, and that if it does not create capital, it determines by whom it shall be employed, or, with Mill, that it permits an addition to the capital in employment, if not to that in existence. In that sense there can be no doubt, that, as has been abundantly testified by economists of note, it aids materially in the production and distribution of wealth. It increases the mobility of capital and thereby vastly augments the advantageous employment thereof, for, by the use of credit, to quote McCulloch, "Capital finds its way into those channels in which it has the best chance of being profitably employed."

Of the importance of credit in the sensitive and highly-organized condition of industrial and commercial society in modern times, it is hardly necessary to speak at any length. It is not too much to say that it is the

mainspring of the economic movement of the world, as we know it. It adds to the productive capital of the community, by drawing into the fund to be employed for industrial purposes, wealth which would not be so employed by the holders of it. In this way, it gives rise to economic activity which would not exist without it, and enables industrial and commercial talent to be utilized, which otherwise might rust in disuse. It is, in a word, under modern conditions, an indispensable cog in the economic mechanism—an intermediary between capital and industrial and commercial capacity, without which the fullest results of both could not be attained.

Being, in a sense, the permission to use the capital of another, credit involves the deferring of payment, on the one side, and the consent to wait for reimbursement, on the other. The artisan, who lacks the means to procure materials upon which to exercise his skill in fashioning articles of utility, must obtain those means through credit. A young man having business talent, but no endowment of wealth, must borrow capital from some possessor of it, if he seeks to utilize that talent to the greatest advantage to himself, unless, as an employee or agent, he has some share of control over the capital of others. At the opposite extreme, is a possessor of wealth, who may lack the competence or the inclination to employ the capital under his control for industrial or commercial purposes. He permits the temporary use of this wealth for the sake of the return which he will derive from it, or, as it is expressed in everyday terms, he loans his principal, or a part thereof, in consideration of the payment of compensation for its temporary use, in the form of interest or a share in profits; the ultimate return of the principal, of course, being taken for granted.

We have here the relation of borrower and lender, which furnishes an example of the office of credit in its simplest form. This relation is founded on trust,—credit implies confidence. A lender or creditor must have faith in his debtor, in the fidelity of the latter to his word or his bond, in his industrial competence, or in his commercial ability,—in his general character as a man, as well as in his special character for fitness as an industrial or commercial factor, even more than in the efficiency of the law in enforcing the discharge of contract obligations.

The operations of credit are not always, however, as simple or direct as outlined above. In many, perhaps in a great majority of instances, under the complex conditions of modern economic society, the capital awaiting employment is deposited in the hands of others, as, for example, banks, or trust companies, or other intermediaries, by whom the actual loans are made, generally from a common fund of such deposits. A loan of money through a bank may be effected by the familiar process of discounting, which is, in effect, the allowance of a bank credit against a note

or promise to pay; the term being derived from the deduction made from the face of the note on account of the immediate advance of the sum which is payable at a future date. On the other hand, the loan may not be made on the individual security of the borrower. It may be made in reliance upon the solvency and reputation for good faith of others, as sureties, or upon the value of securities deposited as collateral for the loan. Sometimes the transaction takes place between persons doing business at a distance, in which case there are called into play the services of institutions specially concerned with the ascertainment of the responsibility and solvency of men in business. A rating by "Bradstreet's," for example, may be the basis for the allowance or the refusal of a credit to a business man, not only in any city or town in the United States or Canada, but as far as the antipodes.

It will be seen, from what has been said, that, however widely extended the sphere of operations may be, the allowance of credit rests in the last analysis upon an individual basis. The bank that discounts a note must be satisfied of the solvency and the reputation for fair dealing, either of the applicant for a loan, himself, or of the sureties whose names are upon the paper, or of both. The guarantors of such a loan must have confidence in the integrity of the borrower, and, in commercial transactions, of the special ability, industry, and judgment of one who assumes to employ productively the capital of others. In cases where reliance is necessarily placed upon the ratings of a mercantile agency, the applicant for credit must have a similar reputation among those who know him best in business. In many cases, the personality and appearance of the individual are determining factors, just as the demeanor of a witness in a court room may turn the scale in favor of or against his credibility. A banker of long experience, who has written a treatise of high character on the practice of banking, says, in speaking of inquiries about the character and transactions of customers: "One main source of information is to see the man. This, like other sources of information, may sometimes fail, but, generally speaking, the appearance and manners of a man will show his character."

What has thus far been said is sufficient to indicate the principal *desiderata* of a young business man who seeks an allowance of credit. He must, in the first place, acquire the reputation of a man of strict honor and integrity,—of a contract-keeper,—one whose word is as good as his bond. Without such a reputation, any enduring success in business cannot be looked for, and the lack of it in the first steps of business life may be fatal. A defect in this all-important quality may be regarded as fundamental. In the next place, a young business man in search of credit must impress those who know him as a person of competence in the particular line of activity in which he engages. It is well to be

regarded as a man of general ability and information, and for such men there are places to be found, in the economic activity of the time; but it will be better for a young man to achieve the reputation of being specially capable in a particular direction. This age, as has been often said, is one of specialties, in which the division of labor has been carried to an extent unknown before. The chances of success, in the long run, do not favor so much a man who can do anything or everything pretty well, as they do a man who can do some one particular thing better than anybody else. Upon the success of such an one, a man who can furnish credit will be more inclined to "bank," as a current phrase has it, with a special application in this instance.

Another matter of capital importance to a young business man anxious to achieve success is that of personal habits. It is not generally understood how much weight is given to this factor in the making or the undoing of a business man. There are men who have already attained no small measure of success who are handicapped by doubtful habits. A knowledge of the existence of these weaknesses is not always widely diffused, but it almost always comes to the attention of men who have much to do with the making of other men's credit. It is a truth that there is no use denying that character is slowly built up by habit, and that originally fine endowments may be dimmed or rendered of little use to the possessor, by yielding to questionable tendencies. In its beginning the indulgence of habit is insidious, and therefore the more dangerous. At first, habit may seem to be merely a way of holding one's self, but, in the end, it becomes too often a way of being held, and the victim of indulgence learns too late "how use doth breed a habit in a man." A young man who is ambitious of success can make no better resolution—none that can more vitally affect his future—than that of avoiding the first seductive temptation to indulgence in irregular relations, undue conviviality, or the hazard of money at play, or speculation in securities on margins, or the running power of horses. A certain gravity and decorum, even in the amusements of a man of business, will tend to inspire confidence in his capacity to succeed, which the display of an opposite spirit might imperil. The statistics of causes of failure show that a calculable percentage of commercial wrecks is due to the neglect of business directly traceable to doubtful habits.

Speaking generally, as the business community is organized to-day, the possession of some capital is necessary to establish a basis for credit. How important this is, will be understood from the fact that, among all the causes of failure, lack of capital is shown by the statistics of commercial mortality, over a period of years, to be the most potent single influence. The average unsuccessful business man is one who tries to do business on an insufficient basis of capital and character. This is illus-

trated by the fact that, of those who failed in the United States and Canada last year, 84.7 per cent. are shown by Bradstreet's statistics of failures to have had either no credit rating at all, or else a credit rating which was at best very moderate. A young man who, starting without any inherited means, contemplates a business career, need not, of course, be deterred by these statistics, which reflect a general tendency, for every day one hears of cases in which a man has risen to affluence, or, at least, has acquired a competency, by his own unaided efforts, and without any capital save a penny earned, which has turned in his hands into a creator of further capital. The process, in such cases, however, cannot usually be other than a slow one. It may be very appreciably hastened by knowledge of and confidence in the character of the man,—a confidence in the upbuilding of which the individual must, in the last resort, be himself the chief factor. Cases are not infrequent in which young men of good character and habits, who show marked business competence, have the capital of others placed at their disposal, and thus, for the time, in effect made theirs.

At this point, a word or two of advice may be ventured. Just as the experienced banker suggested in reference to the customer asking for accommodation, "See the man," so, perhaps, no better counsel can be given to young men looking for credit than to urge them to approach with modest boldness the makers and givers of credit, and to lay before them, with entire frankness, the projects and the prospects upon which they base their hopes of success in particular directions, and their claims upon the confidence of holders of capital. Young men with a bent for a commercial career should make it their business, through proper introductions, to form the acquaintance of bankers and other dispensers of credit, and without haste, but also without rest, labor to attract their notice and deserve their confidence. A certain timidity, often difficult to overcome, deters many young men from making this effort, but, "nothing venture, nothing won" is a maxim of wide application, for the business man, as well as for many others. The words of the poet have a special bearing:—

"'Be bold! be bold!' and everywhere — 'be bold.'"

"Be not too bold!" Yet better the excess than the defect; better more than less. They may not always secure the assistance which might make their argosies "richly come to harbor suddenly," but they have, at any rate, little to lose by trying to enlist the sympathy and support of men of the character mentioned, and they may have much to gain.

It is well to bear in mind, however, that the time in which we live tends to become less and less the day of small things in commercial and industrial affairs. This is particularly true as regards the larger business

centers. There seems to be less place for purely individual endeavor, and a larger field for associative effort. When rightly understood, this condition of affairs has its advantages for a young man without any other capital than a reputation for character and competency. Many such men, more perhaps than ever before, are, through official positions, acquiring a share in the direction of associated capital such as they could never have aspired to in times gone by. They have a capital of their own,—a reputation for trustworthiness, as regards both integrity and judgment, which secures to them an importance, as industrial and commercial factors, such as they could scarcely have attained as individual business men.

They have, as it were, a credit in the one relation which few of them could have secured in the other. The business world has places for men of both classes, and the direction which shall be followed by any individual must depend, to some extent, upon the locality in which his effort is made. In the long run, the same general rules may be said to apply to both. The foundation of success must be laid in the individual character, and in one's reputation, which is but a reflex of that. To win advancement in either line of activity, the prime requisite is a reputation for trustworthiness; for personal and pecuniary integrity, first of all; for business aptitude and judgment which may be ripened by experience into an almost automatic sureness of faculty; and for habits and environment which may be felt to guarantee a continuity and perseverance of character and effort, in reliance upon which the future may safely be discounted.

CORNER.—An artificial scarcity caused by holding property to sell at higher prices, by reason of the increased demand.

CORN LAWS.—Duties under these laws were greatly reduced in England in 1846, while Sir Robert Peel was prime minister, further reduced in 1849, and wholly abolished later. The first Corn Laws in England were passed in 1436, and in the course of the four centuries that followed they were often changed. The protective duty on grain was, at one time, so high as to make importation impossible and large bounties were paid to stimulate its exportation. The repeal of the Corn Laws was effected only after excited agitation and intense opposition by interests that had thrived under their operation.

COUNTER ENTRY.—An entry made to balance one on the opposite side of the debtor or creditor columns.

DAMAGES.—The money compensation claimed for injury received through the action of another.

DAYS, TABLE OF:

FROM ANY DAY OF	TO THE SAME DAY OF NEXT											
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
January	365	31	59	90	120	151	181	212	243	273	304	334
February	334	365	28	59	89	120	150	181	212	243	273	303
March	306	337	365	31	61	92	122	153	184	214	245	275
April	275	306	334	365	30	61	91	122	153	183	214	244
May	245	276	304	335	365	31	61	92	123	153	184	214
June	214	245	273	304	334	365	30	61	92	122	153	183
July	184	215	243	274	304	335	365	31	62	92	123	153
August	153	184	212	243	273	304	334	365	31	61	92	122
September	122	153	181	212	242	273	303	334	365	30	61	91
October	92	123	151	182	212	243	273	304	335	365	31	61
November	61	92	120	152	181	212	242	273	304	334	365	30
December	31	62	90	121	151	182	212	243	274	304	335	365

When February is included between the points of time, a day must be added in leap year.

DAYS OF GRACE.—In many states “three days grace” beyond the time of payment stated in the note is permitted.

DEAD ACCOUNT.—One to which further entries will probably never be made.

DEBENTURE.—A certificate signed by a public officer as evidence of a debt, in which the person is specified.

DEBIT.—To charge with debt on the debit side of an account.

DEBTOR.—A person who owes another; the side of an account in which debts are charged.

DEED, WHAT IT INCLUDES.—All the fences standing on the farm; all the fencing material which had once been so used, and taken down and piled for future use.

New fencing material, never used, is not so included, nor are loose boards and other loose lumber piled across beams in the barn.

Standing trees, trees blown down or cut down and lying in the woods where they fell. But they are not included if cut up, staked out, or corded up ready for sale.

All manure or compost, in the absence of agreement, unless it has been sold to a third party previous to the sale of the farm.

All growing crops and all buildings are included.

DEFAULT.—Failure to pay interest or charges; or to account for money or trust funds. This latter is called defalcation.

DEMURRAGE.—A penalty exacted for undue detention of a vessel in port while loading or unloading.

DEPOSITION.—That to which one deposes or swears. A statement under oath.

DISCHARGE.—The release from obligation, penalty, or debt.

DISCOUNT.—Commercial discount is a reduction of a certain per cent. from the list price of goods. When no discount is allowed the price is "net."

Bank discount is the interest on the face of a note charged by the bank for the advance payment of the note.

DIVIDEND.—That share of the profits or interest in trade, stock, or venture, which belongs to the holder or proprietor in proportion to his share of stock.

DOE, JOHN.—A fictitious name in law representing the plaintiff in cases of ejectment.

DRAWBACK.—A term used in commerce to signify the remission or refunding of tariff duties when the commodity upon which they have been paid is exported. By means of the drawback, an article on which taxes are paid when imported, may be exported and sold in foreign markets on the same terms as though it had not been taxed at all. The drawback enables merchants to export imported articles taxed at home and sell them in foreign markets on the same terms as those offered from countries where no tax is imposed.

EXCHEQUER.—A division of the High Court of Justice in England, in which all questions pertaining to royal revenues are decided.

EXCISE.—A tax upon goods first introduced into England by the Long Parliament, which placed the tax upon liquors in 1642. It controls the licensing of the sale and manufacture of liquors.

FALLING MARKET.—A steady decline in prices.

FLAT.—A term applied to the Stock Market indicating that prices are low.

FORECLOSURE, in law is the legal process by which the mortgagor of a property is, on account of failure to perform his obligations, prevented by law from all rights to redeem his interest in the property.

FREE BANKING SYSTEM.—Apr. 11, 1838, the N. Y. legislature passed the free bank act, under the provisions of which any person or persons might establish a bank by depositing stocks, bonds, or mortgages

as security for its circulating notes. This law was afterward amended, requiring at least half of the securities to be N. Y. state stocks. Previous to the passage of the free banking law of N. Y., charters were granted by special act of the legislature of various states, and their circulating medium was often far in excess of their capital. This caused heavy losses to note-holders. The action of the N. Y. legislature was followed by similar legislation in many other states and was made the basis of the national banking act of 1863.

FREE TRADE.—In politics and economics this term is used to signify an exchange of merchandise between the people of different countries without the imposition of any government tax. A tariff for the protection of home manufactures is held by the advocates of free trade to be contrary to sound principles of political economy, and unjust to the consumers of the articles so taxed.

FUND.—A deposit of money from which supplies are drawn. A sinking-fund is an amount set apart, so that by constant regular additions a public debt may be paid off within a fixed period.

FUNDING.—The process of funding a debt consists in dividing it into shares or bonds, with stated times of payment of interest and principal. Refunding a debt is the process of substituting bonds, usually at another rate of interest, for outstanding obligations. The first funding of the national debt was by act of Congress in 1790, at the suggestion of Alexander Hamilton, then secretary of the treasury. This act provided for the payment, by the issue of 6 per cent. bonds, of all the floating, foreign, and domestic debts of the U. S., and such of the debts of the several states as were incurred in prosecuting the war for independence. Since that time there have been numerous issues of bonds by the Federal state, county, and municipal governments. It was not until 1870 that an attempt was made to refund the entire national debt, when Congress passed the Sherman act, providing for the issue of \$200,000,000 5 per cent. bonds (later increased to \$500,000,000), \$300,000,000 $4\frac{1}{2}$ per cents. and \$1,000,000,000 4 per cents. The 5 per cent. bonds have been retired or refunded at 3 or $3\frac{1}{2}$ per cent. interest. Nearly all the 4 and $4\frac{1}{2}$ per cent bonds have been bought in the open market with surplus cash in the treasury.

HONOR.—To accept or pay a draft, bill, or note.

IMPORT.—Government tax on imported goods.

INCOME TAX.—A form of direct tax upon annual incomes in excess of a specified sum. An income tax has been levied by the U. S. Government but twice in its history. Aug. 5, 1861, as a war revenue

measure, Congress authorized a tax of 3 per cent. on all incomes over \$800 per annum. July 1, 1862, an act was passed taxing all incomes under \$5,000, 5 per cent., with an exemption of \$600 and house rent actually paid. Incomes of more than \$5,000 and less than \$10,000 were taxed $2\frac{1}{2}$ per cent. additional, and incomes of more than \$10,000, 5 per cent. additional, with no exemptions. A tax of 5 per cent. on incomes of Americans living abroad and of $1\frac{1}{2}$ per cent. on incomes from U. S. securities was also levied. In 1864 a special tax of 5 per cent. was imposed on all incomes between \$600 and \$5,000, and 10 per cent. on incomes of more than \$5,000. This law was repealed in 1872. The amount collected under it was \$346,911,760. In August, 1894, the Wilson tariff law imposed a tax of 2 per cent. on all incomes in excess of \$4,000. The Supreme Court in 1895 decided this to be unconstitutional.

INDORSEMENT.—Indorsement is the term generally used to denote the writing of the name of the holder on the back of a bill of exchange or promissory note, on transferring or assigning it to another.

INSOLVENT.—One unable to pay outstanding debts.

INSURANCE.—Insurance is a contract under which one party, called the insurer, agrees, in consideration of a sum of money called the premium, to pay a larger sum of money to another party, called the insured, on the happening of a designated contingency. Insurance has sometimes been said to be akin to gambling, but it is really the opposite. The gambler seeks excitement and gain by the artificial manufacture of hazardous speculations. The prudent man resorts to insurance in order to secure peace of mind and immunity from the loss which might arise from contingencies beyond his control. The gambler creates or exaggerates risks; the insurance office equalizes them.

In round numbers, the total amount of life insurance written by the different insurance companies of the world is \$12,000,000,000. Of this sum \$5,500,000,000 is placed in the United States. Between the years 1880 and 1890 there was \$2,500,000,000 new life insurance written in this country, and but \$1,000,000,000 in the whole British empire.

INTEREST LAWS AND STATUTES OF LIMITATIONS

STATES AND TERRITORIES	INTEREST LAWS		STATUTES OF LIMITATIONS			STATES AND TERRITORIES	INTEREST LAWS		STATUTES OF LIMITATIONS		
	Legal Rate	Rate Allowed by Contract	Judgments, Years	Notes, Years	Open Ac-counts, Years		Legal Rate	Rate Allowed by Contract	Judgments, Years	Notes, Years	Open Ac-counts, Years
	Per ct.	Per ct.					Per ct.	Per ct.			
Alabama	8	8	20	6*	3	Nebraska.....	7	10	5††	5	4
Arkansas.....	6	10	10	5	3	Nevada.....	7	Any rate	6	6	4
Arizona.....	6	Any rate	5	4	3	N. Hampshire..	6	6	20	6	6
California....	7	Any rate	5	4†	2	New Jersey...	6	6	20	6	6
Colorado.....	8	Any rate	10††	6	6	New Mexico...	6	12	7	6	4
Connecticut...	6	(j)	†	(e)	6	New York.....	6	6††	20(i)	6	6‡‡
Delaware.....	6	6	20	6‖	3	North Carolina	6	6	10	3*	3
D. of Columbia	6	10	12	3	3	North Dakota..	7	12	10	6	6‡‡
Florida.....	8	10	20	5	2	Ohio.....	6	8	5††	15	6
Georgia.....	7	8	7	6	4	Oklahoma.....	7	12	5(h)	5	3
Idaho.....	7	12	6	5	4	Oregon.....	6	10	10	6	6
Illinois.....	5	7	20	10	5	Pennsylvania..	6	6	5(f)	6‖	6
Indiana.....	6	8	20	10	6	Rhode Island..	6‡	Any rate	20	6	6
Iowa.....	6	8	20(d)	10	5	South Carolina	7	8	10	6	6
Kansas.....	6	10	5	5	3	South Dakota..	7	12	10(l)	6	6
Kentucky....	6	6	15	15	5(a)	Tennessee.....	6	Any rate	10	6	6
Louisiana.....	5	8	10	5	3	Texas.....	6	10	10††	4	2
Maine.....	6	Any rate	20	6‖	6‡‡	Utah.....	8	Any rate	8	6	4
Maryland.....	6	6	12	3	3	Vermont.....	6	6	8	6	6‡‡
Massachusetts.	6	Any rate	20	6	6	Virginia.....	6	6	20	5*	2‖
Michigan.....	5	7	6*	6	6‡‡	Washington...	7	12	6	6	3
Minnesota....	6	10	10	6	6	West Virginia.	6	6	10	10	3
Mississippi....	6	10	7	6	3	Wisconsin....	6	10	20(i)	6	6
Missouri.....	6	8	10	10	5	Wyoming.....	8	12	5(k)	5	8
Montana.....	10	Any rate	10(b)	8	3						

* Under seal, 10 years. †If made in state, if outside, 2 years. ‡No law and no decision regarding judgments. §Unless a different rate is expressly stipulated. ‖Under seal, 20 years. ¶Store accounts, other accounts 3 years. ††New York has by a recent law legalized any rate of interest on call loans of \$5,000 or upward, on collateral security. ‡‡Becomes dormant, but may be revived. §§Six years from last item. (a) Accounts between merchants 2 years. (b) In courts not of record, 5 years. (d) Twenty years in Courts of Record; in Justice's Court 10 years. (e) Negotiable notes 6 years, non-negotiable 17 years. (f) Ceases to be a lien after that period. (h) On foreign judgments 1 year. (i) Is a lien on real estate for only 10 years. (j) Any rate, but only 6 per cent. can be collected at law. (k) And indefinitely by having execution issue every 5 years. (l) Ten years foreign, 20 years domestic.

SIMPLE INTEREST TABLE

(Showing at different Rates the Interest on \$1 from 1 Month to 1 Year, and on \$100 from 1 Day to 1 Year.)

TIME	4 PER CENT			5 PER CENT			6 PER CENT			7 PER CENT			8 PER CENT		
	Dollars	Cents	Mills	Dollars	Cents	Mills	Dollars	Cents	Mills	Dollars	Cents	Mills	Dollars	Cents	Mills
One Dollar 1 month.....	3	..	..	4	..	..	5	..	..	5	..	..	6
" 2 "	7	..	..	8	..	..	1	..	..	1	..	..	3
" 3 "	1	..	..	1	..	..	1	..	..	1	..	..	2
" 6 "	2	..	..	2	..	..	3	..	..	3	..	..	4
" 12 "	4	..	..	5	..	..	6	..	..	7	..	..	8
One Hundred Dollars 1 day.....	..	1	1	..	1	3	..	1	6	..	1	9	..	2	2
" " 2 "	..	2	2	..	2	7	..	3	2	..	3	8	..	4	4
" " 3 "	..	3	4	..	4	1	..	5	..	..	5	8	..	6	7
" " 4 "	..	4	5	..	5	3	..	6	6	..	7	7	..	8	9
" " 5 "	..	5	6	..	6	9	..	8	2	..	9	7	..	11	1
" " 6 "	..	6	7	..	8	3	..	10	..	..	11	6	..	13	3
" " 1 month	33	4	..	41	6	..	50	..	..	58	3	..	66	7
" " 2 "	..	66	7	..	83	2	..	1	..	..	1	16	6	1	33
" " 3 "	..	1	..	..	1	25	..	1	50	..	1	75	..	2	..
" " 6 "	..	2	..	..	2	50	..	3	..	..	3	50	..	4	..
" " 12 "	..	4	..	..	5	..	..	6	..	..	7	..	..	8	..

COMPOUND INTEREST TABLE

COMPOUND INTEREST OF ONE DOLLAR FOR 100 YEARS.

AM'T	Years	Per cent.	Accumulation	AM'T	Years	Per cent.	Accumulation	AM'T	Years	Per cent.	Accumulation
\$1	100	1	\$2.70,5	\$1	100	4½	\$ 81.58,9	\$1	100	10	\$ 13,780.66
1	100	2	7.24,5	1	100	5	131.50,1	1	100	11	34,064.34,6
1	100	2½	11.81,4	1	100	6	339.30,5	1	100	12	83,521.82,7
1	100	3	19.21,8	1	100	7	867.72,1	1	100	15	1,174,302.40
1	100	3½	31.19,1	1	100	8	2,199.78,4	1	100	18	15,424,106.40
1	100	4	50.50,4	1	100	9	5,529.04,4	1	100	24	2,198,720,200

YEARS IN WHICH A GIVEN AMOUNT WILL DOUBLE AT SEVERAL RATES OF INTEREST

RATE	At Simple Interest	AT COMPOUND INTEREST			RATE	At Simple Interest	AT COMPOUND INTEREST		
		Compounded Yearly	Compounded Semi-Annually	Compounded Quarterly			Compounded Yearly	Compounded Semi-Annually	Compounded Quarterly
1	100 years	69.660	69.487	69.237	6	16.67	11.896	11.725	11.639
1½	66.66	46.556	46.382	46.297	6½	15.38	11.007	10.836	10.750
2	50.00	35.003	34.830	34.743	7	14.29	10.245	10.074	9.966
2½	40.00	28.071	27.899	27.748	7½	13.33	9.584	9.414	9.328
3	33.33	23.450	23.278	23.191	8	12.50	9.006	8.837	8.751
3½	28.57	20.149	19.977	19.890	8½	11.76	8.497	8.327	8.241
4	25.00	17.673	17.501	17.415	9	11.11	8.043	7.874	7.788
4½	22.22	15.747	15.576	15.490	9½	10.52	7.638	7.468	7.383
5	20.00	14.207	14.035	13.949	10	10.00	7.273	7.103	7.018
5½	18.18	12.942	12.775	12.689	12	8.34	6.116	5.948	5.862

INTESTACY.—The state of a person who has died without leaving a will. Every person has the right, as one of the incidents of ownership, to regulate the succession of his property after his death. In all places the principle is that if no will or deed equivalent to a will is executed, or if a will executed is invalid from defect of form, an intestacy follows and the law provides an heir or next of kin in lieu of the owner himself doing so.

IN TRANSITU (Latin).—In transit.

INVENTORY.—A list of goods and merchandise on hand.

JOINT TENANTS.—Those who have a unity of time, title, and possession in real property.

JUDGMENT.—A judicial decree.

LANDLORD and TENANT.—A landlord is one who owns real estate; a tenant is one who hires such real estate and adapts it to his own personal use for a monetary consideration called rent. In such a bargain the tenant is liable for all taxes unless it is otherwise stated in the lease. Leases for a year or less may be verbal, but those for a longer period must be in writing and under seal. All leases should be duplicated; one to be retained by the landlord, the other by the tenant. A tenant can sublet the property so hired, or any portion of it, unless the lease expressly forbids it, but a sub-tenant cannot underlet because a new lease invalidates a former one.

LAW OF BUSINESS, THE

CONTROVERSIES OF BUSINESS GROW OUT OF SIMPLE AFFAIRS—AGREEMENTS SHOULD BE PUT IN WRITING AND DATED—HUSBANDS AND WIVES CANNOT BE WITNESSES FOR EACH OTHER—WILLS SHOULD BE WRITTEN IN PLAIN, SIMPLE LANGUAGE—POWERS OF ATTORNEY—CARE IN PREPARATION OF BUSINESS PAPERS—THE LAWS OF BUSINESS—STATUTE OF FRAUDS AND STATUTE OF LIMITATIONS—MINORS UNDER THE LAW—NECESSITY OF KNOWING AUTHORITY OF AGENTS BEFORE TRANSACTING BUSINESS—LAW FOR DESCENT OF REAL ESTATE—THE ORPHAN'S COURT—PERSONAL RANCOR IN LAWSUITS DEPRECATED BY ATTORNEYS—ARBITRATING LAWSUITS.

PROBABLY the first thing that strongly impresses a woman new to business is the frequency with which simple matters, plainly understood at the time they were talked about, turn out in the end to be neither simple nor understood. Such a woman is likely to be surprised that there should afterward be any question about the matter, and almost sure to be indignant that her recollection or understanding is disputed by the other party. If she only knew, this is her opportunity for a display of that sweet reasonableness which is at once the grace of humanity and the salt and savor of the law. For a woman who has, or is likely to have, business to transact, should learn, in the beginning, that the controversies of business life grow largely out of affairs so easy to comprehend, and so quickly agreed upon, that neither speech nor memory is greatly burdened with them at the time they are supposed to become fixed or settled. A difficult or complex matter is almost sure, at some stage of its discussion, to become the subject of a written instrument, whether a letter, a memorandum, or a formal statement. But the little things of business life, as they are assumed to be at the time, are put off with mere word of mouth agreements, subject to all the risks of defective speech and defective memory. An oral agreement between two persons of legal capacity is, in law, binding upon both; but the law looks beyond the mere words proved to be used, to see if the minds of the parties met, as well as their tongues. For if the mind of one party meant one thing, and the mind of the other meant something else, the supposed unity of speech goes for nothing. A lot owner and a builder may orally agree upon the full interior details of a three-story dwelling; but if, all of the time, the mind of the owner was upon an opulent stone front, and that of the builder upon a mod-

est brick structure, there never was an agreement to build the house for the price agreed. In such a case, the owner must be content with a brick front, or pay the greater value of a stone front.

The safe rule of business conduct is to put into writing any agreement or understanding not immediately to be executed. The writing need not be formal in arrangement or language. For most of the purposes of business life, a pencil memorandum, in common, everyday language, is as good as anything. But it should be signed by the parties, and every written paper should be dated. A long chapter might be written upon the importance of dating every piece of business writing, whatever its character or form.

A hastily written signature may afterward become doubtful to the writer of it, or to those familiar with his handwriting. Therefore, every signed business paper amounting to an agreement to do, or not do, something should, when convenient, bear also the signature of at least one witness. The witness need not see the paper signed; it is enough if, at any time after the signing, the parties or the party against whom the paper is intended as a safeguard, acknowledge or acknowledges that they, or he, or she, executed the paper. The witness, identifying his own signature, proves the genuineness of the paper, and the contents of the paper prove the agreement.

It happens sometimes, by accident, oversight, mistake, or fraud, that a written and signed paper does not express the true intention of the signer. As an agreement consists in the mutual agreement of the parties—that is, in the coming together of their minds at the same time upon the same subject—the law, upon due proof, will make the paper read as it ought to read.

In view of this long discourse, it is almost unnecessary to say a word upon the advisability of preserving all business writings for at least three or four years after they have apparently ceased to have any importance. A very common experience of business life is to suddenly discover the value of a writing after it has gone to the waste-basket as useless.

After all, a great proportion of matters of business must unavoidably rest upon merely oral communications between the parties concerned. If the parties subsequently disagree as to what their agreement was, no great harm is done so long as they do not waste time and money in litigation over the disputed agreement. In law, and in the absence of an agreement, nobody can claim, or be made liable for, more than the fair, current value of the thing supplied or the service performed. Written agreements have a special importance where a married woman is concerned. For in a dispute with an outside party over an oral agreement, she cannot be a witness for

her husband, nor he for her; and unless his or her testimony is strongly supported by circumstances that sustain the testimony, the contrary testimony of the other party may destroy the efficacy of the testimony given by the husband; or by the wife, if the case be her own. A serious mistake often made by persons unused to important matters of business, is to destroy some memorandum hastily or roughly written, perhaps on a ragged or scrappy bit of paper, after replacing it by a carefully written substitute on a fresh sheet of paper. But the destroyed paper was the original writing, and its destruction tends to cast doubt upon the integrity or the accuracy of the copy or substitute.

All that has now been said concerning writings and agreements is to be understood as applying to business matters and to transactions of every kind, without repetition hereinafter.

That even an experienced woman of business should personally draw up deeds of real estate, wills, building contracts, partnership agreements, statements of complex accounts, papers to be used in court proceedings, or other documents requiring expert knowledge or technical arrangement or expression, is not to be expected and hardly to be desired. But any intelligent woman who can write, can put into writing a plain informal statement of anything she wishes or that she agrees to do, or to have done, or wishes to have somebody else do or not do, or agree upon, and such a writing, properly signed or otherwise afterward proved, will usually enable the proper court to give effect to the intention of the writing. But here a special caution is needed respecting writings intended to operate as wills.

A will does not take effect until the person who made it is dead, and, therefore, unable to amend or alter it. Very often, the contents of a will do not become known to others until after the death of the maker. Courts are very liberal in giving effect to wills, for the reason that the makers have passed beyond self-help or help from others. But no court can give effect to a will that directs an unlawful or impossible disposition of property, or that does not conform to the formalities required by the law of the place where the will is to operate, or which is so uncertain that the true intention of the maker is left in doubt. Yet a lawfully executed will is good as to those provisions of it that can be understood and lawfully effected, though other parts may fail because of incurable defects.

When there is both time and opportunity, a will should be written in language so full as to leave no doubt of its meaning. It should be dated and should be signed by the maker. If unable, or too

weak, to write, the maker can sign by touching the pen with which another person makes a cross mark for the signature. Not less than three persons should sign a statement written below the will, to the effect that the maker declared the foregoing writing to be his or her last will and testament, in testimony whereof the witness has signed the statement in presence of the maker. Against the maker's signature should be a seal of some kind, as a wafer; or, failing that, a small piece of paper gummed to the written sheet; or, failing that, a scroll made on the sheet with pen and ink. In case all of these described formalities cannot be effected, they should be followed as far and as closely as possible.

Wills often have many antiquated, fanciful, and wasteful beginnings. A good and sufficient beginning may be like this—*I, Mrs. Mary J. Smith, of Auburn, in the State of New York, do make this my last will and testament, this fourteenth day of October, 1902.* All that follows, down to the signature and seal, may be strictly devoted to business.

When a will apparently favors or disfavors some beneficiary, it is well to make a short statement of the reason for the discrimination.

Wills often fail because the maker has sought to control the disposition or management of the property for too long a time, or has sought to have it go this way or that way, according to a multitude of things that may never happen, or has sought to tie up the property for an excessive or indefinite time, in order that it may greatly increase, and ultimately go to persons unborn. When the maker of a will has arranged it according to living persons, and their children—born or yet to be born—he or she has done all that duty or affection requires, and about all that can be safely attempted. It is also unwise to fence the gifts of a will about with unusual or overstrict conditions. In the eye of the law, this world and its belongings are for the living, and the dead are not permitted to inflict injury or tyranny upon it.

Connected with the subject of wills, is the practice of writing in the pass-book of a savings bank a direction to pay the amount of the deposit to a particular person, in case of the death of the holder. Such a writing is either a bank check, in which case it is revoked by the death of the maker, or it is a will, in which case it must conform to the law of wills as to execution and subsequent proof. If, in expectation of death, the owner of the pass-book makes a gift and delivery of it, such gift and delivery will pass a good title to the deposit without any writing; but if a writing be put in a book, it should mention the gift and delivery, and the expectation of death then entertained by the giver.

Any other personal property may be given and delivered in the same way, and the delivery may consist in telling the beneficiary where the article is, and in authorizing him or her to take possession of it either immediately or when the expected death occurs. The recovery of the giver from the supposed mortal sickness revokes all such gifts.

Promissory notes are familiar by sight to everybody brought into contact with business, and blank notes are among the commonest of printed forms; so that but little needs to be said about them. If the person who is named as the beneficiary of one wishes to pass it to another owner, he writes his name on the back, which is called endorsing it. This makes him responsible for its payment at maturity, if the maker fails to pay and the endorser is promptly notified. But the holder of a note who endorses it only to transfer the title to it, may escape liability for its non-payment by writing, before or after his signature on the back, the words "Without Recourse." When a promissory note does not state any time at which it is to be paid, it is due from the moment of its delivery by the maker.

Sometimes the maker of a note does not wish it to be "negotiable"; that is, capable of being transferred from one person to another by delivery. In that case, he makes it payable simply to John Smith, instead of to "John Smith or order," or to "the order of John Smith." By so making it non-negotiable, he can set up against any holder of it the same objections or defenses against payment that he could have raised against John Smith, if the latter had retained the ownership of it.

When a mere written acknowledgment of a debt is all that a creditor desires or needs, the debtor can give it this form: *I. O. U. Fifty Dollars, November 17, 1901.* To this brief acknowledgment he signs his name and then he owes the money to whoever is in lawful possession of the so-called I. O. U. This is an improvement upon the promissory note—for the debtor. There is no promise to pay the debt, nor any time or place mentioned for payment, nor any admission that the debt is based upon value received. The paper is presumptive evidence of the debt, and puts upon the signer the burden of proving that he does not owe the debt, if he disputes it.

As to all business writings, it may be remarked that every such paper should show the place where it originated; the date when written; the person from whom it proceeds; the character in which he issues it—whether personal or official, in his own right, or as an agent, attorney, or trustee, for another; his customary address or location; the name, quality, and location, of the person to whom issued or for whom intended, and the object or occasion for making it. Some

of these particulars must, of necessity, be expressly stated, while others may be plainly inferred from the whole contents of the paper, and need not be expressly mentioned. These remarks apply to a brief, informal memorandum, to a formally addressed and arranged letter, and so upward in the scale to a legal deed of conveyance.

A word may be added regarding the signature of papers. Some writings require to be subscribed—that is, signed at the end, and it is customary and advisable so to sign all papers; but even a promissory note that reads *I, John Smith, promise to pay*, is legally signed if John Smith wrote his name, and a signature by initials is good unless the law otherwise provides.

Mistakes are sometimes made in the given names of persons, or in the initials of their given names, or in the spelling of their surnames. Such mistakes may cause trouble or inconvenience, but are of no other consequence if the person meant can be identified beyond reasonable doubt, for names are but ear-marks in law, to distinguish one person from another. If Mary Bowen is called Mary Brown in a check, draft, or note, she first endorses it as Mary Brown, and then in her true name. If in a deed that has been recorded and not corrected, then in her own subsequent deed she may be described as Mary Bowen, sometimes called Mary Brown.

So much has been said in favor of the use of printed forms for business purposes, that a short list of the blanks most likely to be needed for business of one sort or another, is sure to be acceptable. In small towns or villages, where they are not kept in stock, the local booksellers can procure them as needed.

FORMS RELATING TO REAL ESTATE.—Bill of sale; builder's agreement; builder's bond, with surety, for execution of agreement; deed, full title, or quit claim; leases, monthly or by the year, or term of years; mining deed; mortgage; notice to tenant to quit; promissory note, secured by mortgage, and same with separate notes for interest; release of mortgage.

FORMS RELATING TO PERSONAL PROPERTY.—Assignment of interest in patent or invention; bill of sale; mortgage of household furniture, store fixtures, stock, farm utensils, or other movable property; promissory notes, unsecured, or secured by mortgage of movable property or by deposit of securities; release of mortgage.

GENERAL FORMS, APPLICABLE TO REAL ESTATE, PERSONAL PROPERTY, OR TO MERE PERSONAL RELATIONS OR RESPONSIBILITY.—Affidavit, agreement, assignment, bill of sale, bond, employee's bond, power of attorney, receipt, will.

A collection of these forms, fastened together and kept at hand, would be a ready aid to business required to be put into writing, and

a study of any of the forms, in such a way as to bring before the mind each and all of its provisions, would certainly sharpen the business faculty.

There is a class of books that may be designated under the title of "Every Man His Own Lawyer," that are more useful to lawyers than to others; but which have their usefulness in business, so long as the inexperienced do not attempt to be exclusively their own lawyers in matters of importance or complexity. One of these publications stands so far above the rest as to warrant a particular mention of it. That is the little book entitled "The Laws of Business," by the late Professor Parsons, one of the great names in American jurisprudence.

Things, as well as persons, are under the law; wherefore, in buying lands, or stocks, or bonds, for an investment, or in lending upon the security of them, it is always needful to know the leading provisions of the law that applies to them. If this be disregarded, loss or vexation may unexpectedly follow. For example, to lend money at seven per cent., where the legal rate is limited to six per cent., may cause the loss of all the interest and, in some places, of the whole of the sum lent. This is but one of many possible illustrations of the necessity of doing things according to law, as well as according to the agreement of the parties. An express agreement is a special law made by the parties for themselves, but their special law must be made within the limits of the general law and must not pass its bounds. The general law expresses the public will and defines the public interest, and when private and public policy conflict, the latter overrides the former. Every business transaction is legally assumed to be founded upon a contract, but in fact, the majority of business transactions occur without any express or prior agreement. In every such case, the law infers an agreement to pay the reasonable value of services rendered or of supplies furnished, and because of this sensible view of the law, the world is enabled to live and to move in a rational and diligent way.

Two notable laws that bear directly on business relations are those respectively known as the Statute of Frauds and the Statute of Limitations. The object of the first is to lessen misunderstandings and perjuries by requiring all agreements affecting real estate, or personal property exceeding fifty dollars in value, to be put into some form of writing; though as to personal property, the payment of money to bind the bargain, or the delivery and acceptance of the goods, or part of the goods, dispenses with the writing. The object of the second law is to compel the bringing of lawsuits within such reasonable time after the occasion for bringing them arises that the defendants may not be put to unjust inconvenience or loss by the

failure of memory, the death of witnesses, and the disappearance or destruction of papers. These statutes have been in operation in both England and the United States for some three centuries, and have so woven themselves into the web of business life that persons who have never heard their names, or who are unacquainted with their provisions, in transacting business unconsciously conform to their requirements. The popular expectancy that a business agreement, not to be instantly executed, is to be put into writing; as a matter of course, arises not so much from the universality of writing in these days, as from the long-molded habit resulting from the Statute of Frauds.

So, when a client consults a lawyer about bringing suit on a matter some ten years old, or thereabouts, and is advised that the case is barred,—that the claimant has waited too long,—there is less surprise than disappointment felt; because for three centuries, nearly, the Statute of Limitations has been at work; and, though the client may have had no prior occasion for direct knowledge of it, he has known and for the time forgotten, of cases of others that, like his own, had become barred by lapse of time.

Both statutes have been much amended, by additions needed to fit them to modern and existing conditions of life; but these are nothing by comparison with the indirect alterations made by courts, in ostensibly applying the statutes to the cases before them. Let us suppose that a grocer, having an old and profitable stand, but whose business has outgrown its accommodations, makes an oral agreement with the owner of the next door premises for a long lease of them. The parties have confidence in each other; the grocer is in a hurry, and, with the consent of the other party, proceeds to pull down the partition and to fit up and stock the annexed premises. Then the owner, thinking that he has the grocer shackled, tells the latter that he has changed his mind about leasing the premises to him upon the terms agreed, and offers him the alternative of getting out or of paying an extortionate price for a new agreement. According to the language of the Statute of Frauds, the grocer is without remedy. He knows that the law required him to take a written agreement from his tormentor, and he knows that a court has no power to change or to ignore the law. But the court knows more than the grocer. Though the king and Parliament, that made the law, have been dead for centuries, and in their lifetime never uttered a word outside of the statute itself, the judge gravely declares this to be a case to which they did not intend the statute to apply. So the grocer gets his lease; the owner gets his proper rent, but pays the cost of the lawsuit; the statute continues to flourish; the court has administered the law with-

out presuming to touch a hair of it, and one more is added to the innumerable cases "outside the statute."

There has been the like experience with the Statute of Limitations. A new promise to pay an old debt, or a payment on account of an old debt, or fraud practised by the debtor upon the creditor, are among the more familiar circumstances that take a case "out of the statute." In the popular estimation, it is dishonorable to plead the statute against an otherwise honest debt, and this is true in many cases. For a long time the popular view was shared by both English and American judges, who grasped at the most trivial circumstances as sufficient to take a case "out of the statute" and to allow it to be heard on its merits. But in 1828, that great jurist, Justice Story, in delivering a judgment of the United States Supreme Court, spoke strongly in favor of the law as a statute of repose, a wise and beneficial law, intended to encourage speedy settlements of accounts, and to afford security against stale demands, the merits of which had become lost to knowledge by lapse of time. If a dilatory creditor sometimes lost an honest claim, it was entirely his own fault; but there was no fault in the greater number of innocent men, for whom the statute stood as a shield against fraud and perjury. This view of the law is that now held by the courts of both countries.

Except in a very plain case, it is impracticable for an inexperienced person to judge whether a particular matter does or does not come under the Statute of Frauds or of Limitations. The question is one for a lawyer, and he is not likely to give an off-hand opinion about it. All that can be said in the way of general usefulness is that the two statutes are in force; that the tendency of the courts is to enforce them, and that in a doubtful matter, the case is most likely to be held as within the statute, and not one of the exceptions to it.

Some classes of people are under legal disability to enter into business engagements that bind them, though the other party to such a transaction may be bound. Minors are the most numerous class. In some places full age is attained at eighteen; in others not until twenty-one years. A person may be of full age for some purposes and not for other purposes. In some places, marriage hastens the attainment of full age, and in others it does not. In transacting important business, anywhere, a prime requisite is to know the law of the place.

For that which is necessary to support health or education, a minor can make a binding agreement, but as to other things, he may confirm or repudiate, as he pleases, after he becomes of age.

Married women are under the same disability as are minors, except when dealing with their own separate property, as to which the law now places them on the footing of single women.

Insane persons, including idiots, are of course under disability, and as insanity is much on the increase, this is a matter that persons transacting important business must always have in mind. The most difficult case is that of an insane person who experiences intervals of sanity, because what is done in such intervals is good in law.

Rights of married women, minors, and absent persons, which otherwise would be barred by the law of limitations, are preserved for them till the wives become single, the minors of full age, and the absent persons have returned; and then, for the first time, the term of three, five, or more years granted by the law for the bringing of actions begins to run. When it has begun to run it continues, even if a widow remarries; if a girl, lately become of age, takes a husband; or if the returned absentee goes away again.

Adverse possession of real estate for twenty years usually gives a good title to the possessor. But if the rival claimant out of possession be a married woman, and she dies in wedlock, leaving as her heir a daughter under age, who marries during minority, and who dies and leaves a minor as her heir, the party in possession may be lawfully attached half a century or more after his title seems to be good. This would be a rare and an extreme case, but such cases do now and then occur.

The title and the possession of real or personal property is often put in the care of a trustee, for the benefit of some other person, in whom, for one cause or another, it is not practicable, or safe, or desirable, to put the direct title or possession. So long as the trustee is diligent and faithful, the beneficiary's interests are in a good state, and the law is very sharp in holding trustees to their duties. Nevertheless, there are many and serious losses from negligence or abuse of trusts. Where the property put in trust is of considerable value, the best trustee to choose is one of the large financial corporations known as trust companies. They are legally empowered to act as trustee, administrator, or executor, and, as a rule, they are financially sounder, and better able to take care of a trust, or an estate, than are individuals. They are especially safe and useful for women having property interests important to themselves, or intrinsically large. Their business is so organized and conducted that they can, and will, look after small properties and large properties with equal diligence and success, and, as much of their business comes from the property interests of women and children, it is particularly agreeable for women to do business with them. "Safety, speed, and comfort" is a railway and steamship motto that could readily be applied to business done with trust companies. They are at once trustees, agents, attorneys, administrators, executors, guardians, savings banks,

deposits banks, storage warehousemen; real estate, mortgage, stock and bond investors for customers, and a multitude of other things in a financial and business way. Some people who live on the income of investments, put their whole capital in charge of a trust company, and cheerfully pay the reasonable charges for the safety, convenience, and profit of such an arrangement.

The business transactions of life are conducted to an astonishing extent by or with persons who, because they do not act for themselves, are of necessity, and in law, agents. This is true of the domestic servant who goes to the grocery for supplies to be charged to her employer, of the saleswoman or clerk in a store or commercial house, of the conductor of a railway train, of the head of an executive department at the national capital and of such a multitude of persons and corporations, in such a variety of circumstances, that the human mind could not conceive or contain them all. And in the business experiences of a life, the losses and disappointments due to the failure of principles to confirm or to execute the agreements or arrangements of their agents, make a large and somber figure. Hence the supreme importance, in both great and little things, of what is now to be stated: namely, that whoever deals with another person, knowing or having reasonable cause to know that person to be acting for somebody else, whether an individual, an association, a corporation, or a government, is legally bound to ascertain the nature and extent of the authority of that agent before closing with him. No individual, association, corporation, or government can always act directly for himself or itself; therefore, he or it must sometimes act through agents. It is impossible that he or it could anticipate all that an agent may say or do, but it is possible for a person dealing with that agent to find out what the principal has authorized him to say or to do in the particular matter. Wherefore the law, which is nothing more than common sense formalized, puts upon the proper party the responsibility of inquiring into that which could not be known without inquiry. Of course, if the agent chooses to act as a principal, and is financially good, the real principal may be disregarded.

When the owner of real estate dies without making a will, the law of the place comes into operation, and directs how and to whom the title and possession shall descend. The law of descent is not uniform throughout the United States; but, in general, it provides that one-third shall go to the widow for life, and the rest in equal shares to children; the children of any deceased child taking what would have been their parent's share. If the lately deceased owner of the real estate was a wife, and children have been born of the

marriage, then the husband gets the whole for his life, after which it goes equally to the children.

Where there are no children, or descendants of children, the real estate goes to the brothers and sisters of the last owner, and to their descendants. If that line of inheritance fails, the law goes up to the father of the last owner and gives the property to his brothers and sisters and to their descendants. But if the real estate came to the last owner through his or her mother's side, then it goes to the brothers and sisters of the mother and to their descendants.

The law for the descent of real estate not disposed of by will is so voluminous that no useful purpose could be served by following it out here. The principle of the law is to give the estate to those of the blood of the last owner; the downward line having precedence of the upward; those nearest being preferred to those more distantly connected, and those tracing their connection through fathers being preferred to those tracing through mothers, except when the estate came through the mother's line. On a total failure of blood relationship, and when there is no surviving husband or wife, the property goes to the state.

Every state and territory of the Union has a perfectly just and reasonable law for the disposition of real estate not disposed of by will of the last owner. So that if the owner of real estate has as many as three or four children, including the descendants of deceased children, and does not wish to give husband, widow, or any child any more than as above stated in describing the general law, then there is no necessity for a will of real estate.

The law everywhere, too, provides for a just and reasonable distribution of personal property not disposed of by will. The logical cause for making a will is the desire, the expediency, or the justice, of setting the law aside in the particular case, in order to make a special arrangement better suited to the circumstances of the case, either as they actually exist at the time the will is made, or as it is reasonably possible they may exist at the time the maker of the will dies.

In the case of real estate not disposed of by will, the title and the right to possession pass instantly, by mere force of law, without any special proceedings, to those entitled, called the heirs at law. But devisees, being those to whom real estate is given by will, must establish the will in the court charged with the administration of estates of deceased persons. The same court also has charge of the interests of orphans under age appointing, supervising, and controlling the guardians of their person and property. The proceedings in these courts are usually less technical than in other courts, and the judges, and

clerks, of such courts, having widows and orphans for their habitual suitors, are accustomed to do much more of the work in a case than is customary in other courts, where lawyers are habitually employed. Under favoring circumstances, it is quite possible for an intelligent woman, with the customary aid of the court officials, to carry through the settlement of a large estate; but, as a general rule, it is better to have a lawyer for any estate amounting to as much as three thousand dollars. So strong is the feeling that widows and orphans are special objects of consideration, that lawyers of good standing usually charge less in an administration case than in other kinds of professional business. True, many estates are diminished, and even wasted, in the probate courts — as such courts are called — but that is because of the hatreds and contentions of the principal parties. The popular idea that lawyers are fomenters of litigation is known to be untrue by the lawyers themselves. Their experience of the delays, uncertainties, and expenses of legal contentions, puts them in a frame of mind to avoid or to shorten litigation; beside which, the more profitable part of a lawyer's business is that which is done amicably. Where nothing is to be spent on a lawsuit, he can reasonably charge more for a special service. A lawyer in good practice, and of good repute, dreads nothing more than the bitterness and ardor of a family quarrel over property. Any such quarrel, fought out strenuously to the end, is very likely to leave the lawyer with far less pay for his labor than he ought reasonably to receive. Family lawsuits are often proper means for bringing the judicial machinery of the state to a solution of uncertainties and conflicting claims that the parties could not settle among themselves with satisfaction. But when the parties are personally inflamed against one another, the lawyers in the case, like other members of the community, are shocked by the display of unnatural feeling, and they sometimes come together, behind the backs of their clients, to concert means for moderating a fury that they cannot openly control. For a lawyer to promote or encourage personal rancor in parties to a lawsuit, would be to blacklist himself with the bench and bar, and next to doing well at his business, there is nothing a lawyer so much esteems as standing well with those who know him better than any client can know him. Newspaper accounts of legal proceedings concern themselves mostly with exceptional cases, and with the personal affairs of the less worthy members of the bar, so that the public gets but a partial, and a misleading, view of the practical working of the law. Jurymen learn better, but a man with repute, talent, and leisure, enough to enlighten his fellow-citizens, shuns jury service whenever he can, and drops the whole business from his mind when a reluctant tour of jury duty is completed.

What has been said suggests a reference to the device of arbitration, as a substitute for law, in deciding controversies between parties who cannot settle their own dispute. An arbitration is quick, easy, and inexpensive, and, therefore, free of the ingrained qualities of a legal proceeding. Unless these merits are overbalanced by incurable defects, arbitration ought to displace legal procedure to a very appreciable extent; but it does nothing of the kind. In respect to private contentions, it makes hardly a ripple on the surface of litigation. A legal proceeding has its formal statements, technically called pleadings, which bring out clearly the questions of fact, and the legal rights upon which the decision must turn in order to be rational and just. It has its rules of evidence, for proof of the facts, under which everything pertinent is admitted and everything irrelevant shut out. It has its learned and experienced advocates, on each side, to apply the evidence to the facts, and the facts to the right of the case. Disputes about the pleadings, the evidence, or the law of the case, are submitted to, argued before, and adjudged, by a man whose professional training and life-work have especially fitted him to consider such questions intelligently and to decide them justly. Nearly every such question has arisen in prior cases, and whenever it has been disputed and argued to the utmost limit, there is an existing report of how it was decided, and of the reasons for the decisions, that aids in rightly deciding it again. If the case is to be first decided by a jury, the judge has prepared the jury for a right decision by admitting all the proper, and excluding all the improper, evidence; by reviewing the evidence, without suggesting what parts or witnesses to accept or reject, and by putting the law before the jurymen in such a way that their untrained intelligence may apply it to any conclusion they may come to about the facts. In short, all that the civilized world has learned, in thousands of years, about finding out the truth and applying it to the practical uses of justice, is drawn upon to do justice to the parties in a lawsuit. Arbitration, in the way it is commonly practised, omits all these numerous and important aids to doing what is required to be done. It acts upon the theory of inviting a highly esteemed tailor or shoemaker to conduct a chemical analysis, to repair the machinery of a watch, or to operate a steam-engine. When lawyers go to arbitration before a single arbitrator, they always choose a lawyer, so that they may have all the attainable advantages of legal procedure without actually going to litigation. If there be two or more arbitrators, they seek to have one of them a lawyer, to help get the dispute properly sighted, properly enlightened by proof, and properly fitted to such principles of right and justice as apply everywhere, and that never change. Indeed, to go into an unsuitably prepared

arbitration is as bad as the preceding carelessness that, in a good half, or more, of the cases, is at the bottom of the calls for arbitration or litigation. In a case of any importance, the services of a lawyer are as much needed for an arbitration as for court proceedings.

TO SUCCEED IN LIFE INSURANCE

By GAGE E. TARBELL

Second Vice-president Equitable Life Assurance Society



THE life insurance solicitor is a salesman who offers to the public one of the finest commodities in the world. It is a commodity which protects widows and helpless children from suffering, and under our modern policies, gives to a man a guarantee that poverty, like a worm, will not eat the peace and comfort out of his last years. It provides the ideal method, devised and developed by long years of study and experience, by which a part of man's virile and efficient present can be passed on to be his protection in enfeebled age, and also the protection of those dependent upon him when he answers the call of death. But closing our eyes, as we all like to do, to the picture of inevitable age and dissolution, the life insurance policy will increase the plenty of a man's coming days and add to the satisfaction of the present.

The life insurance agent is the intermediary in this vital transaction between the present and the future. His visit to-day, and two days from now, and next week, may not be, in the rush of business, particularly welcome, but the time is likely to come when a matured policy will be a godsend, and the agent's work will be justified to the utmost. The agent who is most successful is he who realizes this; who knows that he is not asking a favor of a man when he requests him to sign an insurance application, who possesses the confidence born of the knowledge that he is putting a far-reaching benefit in the way of the man whom he solicits. This agent is enthusiastic over life insurance, and he imparts his enthusiasm to others. Enthusiasm! It is the great lever in our business, the potent element in the combination which unlocks the gateway to success. Enthusiasm generates energy; in a word, it is the quality which makes the difference of a place in the rank and file and a position at the top. Point out to me a successful man and I will point out one who loves his work and finds his happiness in it,

Yet, it is well to be more specific than this in attempting to indicate the road to success in the insurance business. I will suppose that a young man has been inspired with the right spirit and starts out to devote his life to insurance. In the first place, what are the possibilities of this industry — what can the worker hope for in the matter of pecuniary reward? If he is merely an average man, of fair ability and fair energy, he will be able to make, after he has gained some experience, about two thousand dollars a year. It is true that a prominent insurance official stated in a speech that the annual income of the average insurance agent was hardly a thousand dollars, but this is misleading, for the reason that there are many men throughout the country who solicit insurance as a side issue. Not devoting their entire time to the business, their earnings are naturally small. From the sum of two thousand dollars earned by the man in the ranks, the compensation of insurance agents reaches the amount of a hundred thousand dollars a year or more. The men whose incomes approximate the latter figure are generally agents who control many other agents in a large territory, receiving a percentage on the business of the latter, and at the same time writing much personal business. There are a number of instances of general agents soliciting personally two or three million dollars of insurance a year; in one or two cases the sum has reached to the amount of five million dollars. Some remarkably successful insurance men do not care to take general agencies, preferring to devote themselves exclusively to personal solicitation.

The men who commend themselves to the companies for whom they solicit, hold the situation in their own hands; they can remain field-men, or active solicitors, if they so will, or they can have positions in the home office. The ablest men are made managers of agencies, instructors of agents, superintendents of agents, and vice-presidents; occasionally one who has worked his way up from the bottom is called to the presidency of a society. All of the good men may be sure of berths for life. The company to which they have devoted their best years in earnest work will, in return, be loyal to them. For the man starting out without capital, with no resources but his brain and energy, I regard the insurance business as one of the most remunerative and satisfactory on earth.

The Life Insurance field is not overcrowded as are the learned professions. There are probably fifty men who would take out insurance, if the matter were brought to their attention in the right way, to one who is actually approached. Another important phase of the matter is that the agent's material is constantly freshening. Every year, hundreds of thousands of young men are getting married and arriving at an age when they can be made to understand that insurance is a proper provision for the future. At the same time, the hosts of men who have

already been insured offer a field which is still productive. They have been educated to the insurance idea; many of them are themselves enthusiastic; as their incomes increase they want to take out more insurance. Competition is a minor factor in life insurance. The agent who first broaches insurance to a man and establishes himself on a friendly basis with him is almost always the one who gets the business. There are so many men to solicit that it is not necessary, and rarely pays, to attempt, to make some other agent's "prospect" your own. Another advantage of the insurance business is that it cannot be hurt by industrial combinations, as is that of most other salesmen. Furthermore, the insurance man need not sit in an office and wait for business, as lawyers and doctors must. He makes his own work; whether it is little or great depends upon his own efforts.

Enthusiasm, as I have said, is the steam within the boiler, but energy is the locomotive which carries the insurance man farther and farther along the railway of achievement. Energy counts for about ten times as much as brilliancy in insurance. The brilliant man cannot be a success without energy, while the energetic man can be, and often is, a great success without brilliancy. I am willing to say unhesitatingly to the young man of intelligence and energy: Go into the life insurance business. It is an occupation in which nothing depends upon luck or favor, but all upon yourself.

The first move of the beginner is to call upon the general agent of some strong association in his locality. The agent will be glad to see him. He will explain the different policies, give him a rate-book, and show him how to compute premiums according to age. Then the fledgling starts out. If he has prosperous friends, he naturally calls first upon them, but friends do not go very far, after all. The bulk of business will be done with strangers. The beginner must not be discouraged if his first efforts seem fruitless. March is commonly a bleak and blustering month, but is always followed by May and June and the summer harvest. Our business cannot be learned in a few weeks or months. There are plenty of disappointments at the start. Men whom the young agent feels sure of getting will often put him off indefinitely, or fail him altogether, but his efforts are not by any means fruitless on this account. He is learning something every day, and after a while first one and then another of his string of "prospects" will capitulate. He is beginning to gather in the crop from the seeds sown in desolate March and April. Meanwhile he is sowing more seed. From this time on he will be in the midst of a continuous seedtime and harvest. But the gleaning depends, of course, upon the extent and efficiency of the planting.

A great fault of the average agent is his proneness to waste time. So numerous are the opportunities to while away hours in idleness that

the insurance man does it almost unconsciously. It would be well for him if he did not have the handling of his own time; if, for example, he had to begin at seven or eight o'clock in the morning and work until five or six at night, as do most men. Many agents, furthermore, waste time and energy by a more or less mistaken application of them. A large number of solicitors start out with the idea that in order to write an application the prospective applicant must be seen many times, and gradually be made to realize his need for life insurance, and that some day — some time in the future — he will be "ready to be picked." While it is true that there are cases where it is only the constant dripping of water upon the stone that will do the work, these are exceptional.

If the agent has carefully studied the "prospect's" position and needs, if he is thoroughly posted himself and is determined and enthusiastic enough to carry conviction, there is no reason why one good interview, discreetly timed and carried out in a business-like manner, should not secure the application, if it is obtainable. I believe the successful agent of to-day very rarely requires more than two interviews, and knows that if he cannot then land his man it is better for him to look elsewhere for results. In this connection it seems pertinent to quote what one of our most successful managers said to me, in talking of his methods: —

"I never have very many cases on a string at a time. I take just a few — three or four. Then I sit down in my office and think hard about one of them. I go over all the ground and practically insure the man in my mind, and then I go right out after him and make the effort of my life to get his application. Then I take up the next man I have in mind in the same way."

That man is thorough. He thinks out the details of his work carefully and earnestly before he performs it, and through this habit of serious thinking, develops originality in methods. The agent who devises ingenious ways of getting introductions or audiences, or happy methods of presenting his subject and leading up to the application, is the agent who is always on hand with results and new ideas to work upon in the future. He is the man with not too many irons in the fire; the man who does one thing thoroughly and with all of his might.

There is much in the way a statement is put. Present your whole case, but be as concise and simple as possible about it. Try to save the time of the applicant. Remember that words are like sunbeams, the more they are condensed the deeper they burn. Put the matter in an attractive light. The most successful agents do not tell a man that it is his duty to insure his life; that he has got to die some day and it is criminal not to provide for his wife and children; that statistics show that eighty-five per cent of men engaged in business fail. Not a bit of it!

They paint a bright picture. They talk to a man about saving his earnings for future years. All that the other agents say may be true, but it is not pleasant to hear. Hope is a more powerful lever than fear.

The agent who does not use a great deal of diplomacy will not be eminently successful. Many schemes fail in detail, and unless he can gather together the broken threads and resume his efforts cheerfully, he will be defeated in many cases where success is possible. But temporary defeat does not dishearten the agent who has plenty of plans to put in place of plans that fail. The very successful agent is greater than his achievements. No turn of affairs takes him by surprise or finds him unprepared to make such changes as circumstances require. He knows how to stick tenaciously to the subject in hand and will not allow it to be side-tracked. He knows how to do the talking himself, and to anticipate and answer objections before they are made. He knows that he is after an application; he keeps his mind on that all the time, determined to get it; he is adroit enough to turn every suggestion to his own advantage, and he comes away with the thing he went for. He knows that the only thing that counts for anything is actual results; that promises or prospects will not buy food and clothing; that all his work and all his eloquence amounts to nothing if he cannot persuade men to actually insure their lives.

Never approach a man like a suppliant craving a favor. If you have an apologetic feeling, get rid of it. There is no cause for it. The contrary feeling — the feeling that you are bringing a benefit to the man you visit, is your rock of strength. A man sets his own limitation; the cause of our failure lies within ourselves. Dare to attempt. If the little fledgling stayed always in its nest and never tried the wings God gave, it would never know that it could fly, or what its wings were for. It is very true, as Schiller has said, that "every man stamps his value on himself." Many men achieve only moderate results from mere lack of confidence in themselves, and because they aim too low.

The determination to do one thing and do it well, the concentration of all your forces upon the accomplishment of that thing, to the exclusion of whatever may tend to draw away any part of your ability or attention; the following up of the one thing chosen, with patience and persistency; that is the essence of success; that is concentration in its broader meaning as applied to the pursuit of a lifetime; that is the concentration which is power, and which compels all your environments to subscribe to your success; which sifts out that which is inharmonious and unnecessary to your plan of work, and harmonizes that which is adverse and yet essential. This is the force that gives to life a definite aim, and to each his individuality; which makes of us men and women of purpose and character, working out some definite problem and proving our usefulness.

The rule is that if a man wishes to be successful he must choose his vocation in life and must concentrate all his energies upon it. If he has selected life insurance, life insurance it must be. Having selected life insurance as your business, go right ahead, working with all your might, with one end in view, and sooner or later that end will be attained. Cut off every lesser interest that takes away any of your energy from your chief interest. If there is any business in the world that pays well for singleness of purpose in its pursuit, it is certainly life insurance. Look at our leading agents to-day and see what they have accomplished in ten or fifteen years. Hundreds of them have built up independent incomes from very small beginnings.

Be systematic. Accident or spasmodic effort in the life insurance agent may secure an occasional application, and if it does it ought to be accepted with thanks and ascribed to good fortune. But the steadily flowing and constantly growing business—a clientele that multiplies and increases itself by influences set in motion in thoroughly directed daily work—that comes only to the man who works systematically. In the hour when you sit down quietly and concentrate your mind on plans and their execution, you must train the mental eye to see clearly the results desired. And these results must be definite. For the solicitor, it must be Mr. White's application to-day, Mr. Black's to-morrow, and Mr. Jones's the next day. Never an indefinite something—never a hazy idea that before the week is done he will have somebody's application. That will not stock the larder nor pay the rent.

I often think what an excellent thing it would be if we could have a school where men could come and learn How to Get Applications. But that is a knowledge not to be acquired as we get our Greek and mathematics. A man may sit down and study the principles of life insurance, and the various plans of the various companies, and the arguments *pro* and *con*, and be greatly benefited thereby; but there is something he must possess that is not taught in schools, namely: tact, and knowledge of human nature. He must know how to handle men and mold them to his opinion. He must have the skill to create a good impression at the start, the quick perception to grasp the favorable moment and the decision to close the bargain on the spot.

The agent who wishes to be most successful must have a full knowledge of the man to whom he is talking and of all the conditions that surround him. He must know all about his family, the number and ages of his children, his business, his annual income, his wealth. Then the contract, if intelligently presented, can be made to cover the case so completely that the listener will be sure to feel that he would be very unwise not to take advantage of the opportunity offered; more than likely he will feel that the subject of life insurance has never before been pre-

sented to him with such force and directness. That is the vital moment, the time to secure the signature to the application. From the very moment the conversation begins, the agent should keep in mind that the one thing that he wants is the signature to the application. Without that, nothing has been accomplished, even though the benefits of life insurance may be discussed for hours.

My experience and observation confirm me in the opinion that the thing lacking in most of those who make a trial of the business is the knack of closing a bargain when the time is ripe; either through not knowing how to do it, or not recognizing when to do it. There is a time to pull an application blank out of the pocket, fill it in, and get the applicant's signature, just as much as there is a time to call upon him, and a time to put in one's most telling arguments. I have known many men who have easily had the power to make their listeners not only believe that life insurance is a most excellent thing in general, but actually feel their own personal need of it at that particular time; and yet those men have failed to prosper because they lacked pressure at the proper moment. Call it tact, if you will, or what you will, but certainly much of a successful agent's success is due to his knowledge of when and how to close a deal.

Some agents, like would-be salesmen in other lines, do not know when to stop talking. "Talking is like playing the harp; there is as much in laying the hands on the strings to stop their vibration as in twanging them to bring out their music." The agent who, when he sees that his listener is convinced, does not stop talking and immediately proceed to clinch the bargain by a signed application with a binding receipt delivered, and an appointment for a medical examination, simply leaves some more clever man to gather the fruits of his labor, and goes on wondering why he does not make more money as a result of the work he does. The man of ordinarily keen perception should soon learn to recognize the proper moment and secure the prize that he is after. Some men master this most essential part of the business more easily than others. It means, in reality, the knowledge which enables us to understand the other man—the knowledge of human nature. It can be acquired only by experience, which, if it is a hard master, teaches effectively. The realization of one blunder which costs an application will help to close the next contract when the moment is propitious.

You can become a successful life insurance agent only by practice. The first applications are hard to obtain, but each success paves the way to further success. Be faithful to the work and your days will be prosperous. Money enough for all reasonable desires will be yours, and many men will know you for a friend. It is rather an interesting fact, that no matter how hard a man may appear to wriggle and try to draw

away from the soft but certain pressure of the agent, he is proud of having taken out insurance and mentions it to everybody he meets. He rightfully regards it as just so much of an addition to his estate, and he has a very friendly feeling for the man who insisted that he should give the matter attention. This shows that most of the objections encountered by life insurance agents are simulated and fictitious, springing from the instinctive desire to put off till to-morrow what should be done to-day. Every man knows in his heart that life insurance is one of the finest things on earth.

SOME RULES FOR SUCCESS IN THE INSURANCE BUSINESS

By OLIVER L. BROWN

New Jersey Manager for The Bankers' Life Insurance Company of New York

THE question is often asked whether life insurance work contains possibilities for the young man's future equal to those of other professional or business occupations. In this connection the statement is made that its agency recruits are largely those who have failed in other lines. If it be true that insurance workers are often of the kind mentioned, it seems to argue well for the chances of the man of higher qualities, who enters the business early in life, with the purpose in making it a study and devoting himself to the attainment of success in this sphere. Perhaps it is this theory which has induced the coming of the large number of men of ability who now devote all of their time to life insurance work, for it will hardly be disputed that the standard of individual character is now much higher than ever before; especially is this true in the agency department.

The many departments offer much latitude for choice of work. The man of mathematical turn may look to the position of actuary as a goal worthy of his efforts; one whose talents fit him for success as a salesman finds almost unlimited possibilities awaiting him as a solicitor; if one has ability in managing men, the agency department offers excellent positions as general managers, general agents, superintendents, and the like; if great constructive genius is possessed, let him look to the formation of new companies or the management of old; if he is a physician, the position of chief medical examiner is not unattractive; great clerical ability may lead one to the secretary's chair.

To the young man beginning his life insurance career, advice upon a few lines may well be given. In the first place, do not begin with the purpose of temporary employment in mind. First become convinced

that the profession is worthy of your best life efforts. Without this conviction you cannot hope for success. Having reached this conclusion, study every detail of your profession carefully, and do not let the least of your studies be that of men.

You should look well to your personal appearance, which is a powerful assistant to the agent in his influence upon the mental processes of the man whom he desires to insure. The address of the agent should at all times be polite, but his manner positive and firm. In presenting the attractions of his policy, he should emphasize only those points which are certain, and avoid discussion of "estimates," which are generally misleading and consequently never conducive to the permanent success of the agent. He should endeavor to so treat every man he insures that he will have made him his personal friend and an assistant to him in finding future business. He should study the methods of successful solicitors, and adopt such of those methods as seem likely to better his own methods. When, at the end of any week, he finds that he has done much more profitable work than usual, he should remember that all weeks are not good ones, and should spend no more than he would have done had his profits been much lighter. This principle is important, for the profits of life insurance agents are so variable, and periods of depressing return so certain to occur, that he who spends his profits as he makes them, digs a pit into which he will certainly fall.

The agent should let every effort be for his company's success. While it is the individuality of the agent that induces business, the applicant seldom knows this fact, and never acknowledges it to another. The company's success in your territory means your success, and few individuals can hope for eminence save as servants for their companies.

Do not quarrel with the decision of the medical examiner of your company. If he rejects an applicant, feel assured that he, as an officer of your company, does so because it is necessary. Remember that he wishes business to be added to the books as much as you do, and that your interest is identical with his. Comply with the rules and regulations of your company, though personal hardship to yourself may result. Few general rules fail to work individual hardship, but the general rule is a necessity.

Do not accept money advances from your company. Advances tend to lessen effort by destroying the feeling of uncertainty which is a stimulus to the right kind of man. If you work faithfully and save systematically, you will not need them, and if you receive them and do not so work, the money given you will probably prove a bar to advancement, by giving you the reputation of requiring watching by the company's managers, or by weighting you with debt and discouragement and unfitting you to put forth your best efforts.

One other practice the agent should religiously observe. He should never "twist." This term is applied to the practice of disparaging the worth of a rival company, discrediting its policies, its agents, and the like. Why it should be deemed necessary, in order to do business for his own company, that an agent should first tear to tatters the reputation of another, is one of the mysteries of the profession. It is time wasted which might be well employed. It not only is detrimental to the business, but equally so to the interests of the agent who employs these tactics.

The insurance man should employ every moment not otherwise occupied, in learning things about his policy and the policies of other companies, about the insurance business in general and the relation of his company to his competitors, and, in fact, should leave nothing undone to give himself a most thorough knowledge of his business and of methods which may tend to make him more successful in its practices.

These are a few of the rules which I think should govern a man's work in a business which is fast becoming of great importance in American economics.

LESSEE.—One to whom a lease is given.

LESSOR.—One who makes a lease.

LETTER OF ADVICE.—One giving notice of a shipment.

LETTER OF CREDIT.—A letter of credit is a letter addressed to a correspondent at a distance, requesting him to pay a sum therein specified to a person named, or to hold money at his disposal, and authorizing the correspondent to reimburse himself for such payment, either by debiting it in account between the parties or by drawing on the first party for the amount. These documents are used principally by travelers. They are issued for any reasonable amount by the banks of large cities, payable in sums to suit the holder. The amount of the letter of credit is deposited with the home banker. A list of banks which will advance money thereon is given on the back of the letter. The signature of the traveler or payee serves as a means of identification.

LETTER OF MARQUE.—The commission authorizing a privateer to make war upon or seize the property of another nation.

LIEN.—A hold or claim on property to secure a debt.

LIGHTERAGE.—Payment for unloading ships by lighters.

LIMITED COMPANIES are commercial organizations which limit the extent of liability that stockholders can incur.

LIQUIDATION.—Settlement of liabilities.

LLOYD'S.—A famous shipping-insurance corporation at the Royal Exchange, London, composed of merchants, brokers, ship-owners, and underwriters. Its purpose is to promote commerce especially by marine insurance and the publication of shipping news.

MANIFEST.—A list of a ship's cargo and passengers.

MANOR.—In English law, a freehold estate held by the lord of the manor, who is entitled to maintain a tenure between himself and the copyhold tenants, whereby a sort of feudal relation is kept up between them. Manors closely resemble the feudal estates held in Scotland by all proprietors of land. Manors of the English type were granted in the U. S. in several of the colonies, on such terms that property right carried right of jurisdiction. In 1636 the proprietor of Maryland ordered that every grant of 2,000 acres should be made a manor.

MARTIAL LAW.—A system of government under the direction of military authority. It is an arbitrary kind of law, proceeding directly from the military power and having no immediate constitutional or legislative sanction. It is only justified by necessity, and supersedes all civil government. Suspension of the writ of habeas corpus is essentially a declaration of martial law. "In this case," says Blackstone, "the nation parts with a portion of liberty to secure its permanent welfare, and suspected persons may then be arrested without cause assigned."

MEASURES.

(For BRICK WORK, see under BRICK.)

STONE is measured by the cord. To find the contents of a pile of stone, multiply by the length, breadth, and thickness, in feet, and divide the product by 128. The result will be the number of cords.

BOARD MEASURE.—1. For boards not more than one inch thick, multiply the length in feet by the width in inches, and divide the product by 12.

2. For boards more than one inch thick, multiply the length in feet by the width and thickness in inches.

3. To find the width of a tapering board, measure it at the center, or take one-half the sum of the widths at the two ends.

LATH WORK, see under LATH.

WALL PAPER is sold by the roll, which is 18 inches wide. Single rolls are 24 feet long and double rolls 48 feet. Part of a roll is counted the same as a whole roll. The area of the walls is measured in feet, making deductions for openings. It is necessary to find the number of rolls actually used in order to ascertain the cost of papering.

PAINTING is estimated by the square yard. Double measure is usually allowed for carved moldings.

KALSOMINING is measured like painting, by the square yard.

GLAZING is done at so much per light, according to size.

SHINGLING.—The average width of shingles is four inches. They are packed in bunches of 250 each. Four bunches, or 1,000 shingles, will lay 100 square feet of surface, allowing four inches to the weather. This is called a square of shingles. They require four-penny nails.

LINEAR MEASURE

12 Inches (in.)	= 1 Foot	....ft.
3 Feet	= 1 Yard	.....yd.
5½ Yards, or 16½ Feet	}	= 1 Rod.....rd.
320 Rods, or 1760 Yds., or 5280 ft.		
	}	= 1 Mile .....mi.

SURVEYORS' LINEAR MEASURE

7.92 Inches	= 1 Link	.....l.
25 Links	= 1 Rod	....rd.
4 Rods	= 1 Chain	.....ch.
80 Chains, or 320 rds., or 8000 l.	}	= 1 Mile.....mi.

In the sale of goods, the linear yard is divided into halves, quarters, and eighths; in estimating duties in the Custom House, it is divided into tenths and hundredths.

MARINERS' LINEAR MEASURE

9 Inches	= 1 Span	.....sp.
8 Spans, or 6 ft.	= 1 Fathom	.....fath.
120 Fathoms	= 1 Cable's Length	....c. l.
7½ C. Lengths, or 880 fath., or 5280 ft.	}	= 1 Common Mile.

Note.—The Nautical or Geographical mile, or Knot, is 6086.7 ft., or about 1.15½ common or statute miles.

SQUARE MEASURE

144 sq. Inches	= 1 sq. Foot	.....sq. ft.
9 sq. Feet	= 1 sq. Yard	.....sq. yd.
30¼ sq. Yards	= 1 sq. Rod	.....sq. rd.
160 sq. Rods	= 1 Acre	.....A.
640 Acres	= 1 sq. Mile	.....sq. mi.

SURVEYORS' SQUARE MEASURE

625 Links	= 1 Pole	.....P.
16 Poles	= 1 sq. Chain	.....sq. ch.
10 sq. Chains	= 1 Acre	.....A.
640 Acres	= 1 sq. Mile	.....sq. mi.
36 sq. Miles	= 1 Township	.....tp.

U. S. PUBLIC LANDS

1 Township	= 6 mi. x 6 mi.	= 36 sq. mi.	= 23,040 A.
1 Section	= 1 " x 1 "	= 1 " "	= 640 "
1 Half-Sec.	= 1 " x 1/2 "	= 1/2 " "	= 320 "
1 Quarter-Sec.	= 1/2 " x 1/2 "	= 1/4 " "	= 160 "

Note.—Nearly all the land west of the Alleghany Mountains and north of the Ohio River, and the land west of the Mississippi River, has been surveyed and platted by the U. S. Government. The method of survey was to run lines north and south parallel with some established meridians, called principal meridians; these lines were crossed at right angles so as to form townships of six miles square.

CUBIC OR SOLID MEASURE

1728 Cubic Inches (cu. in.)	= 1 Cubic Foot	.....cu. ft.
27 Cubic Feet	= 1 Cubic Yard	.....cu. yd.
16 Cubic Feet	= 1 Cord Foot	.....cd. ft.
8 Cord Feet	}	= 1 Cord
128 Cubic Feet		

Note.—A pile of wood 4 feet wide, 4 feet high, and 8 feet long contains 1 cord: and a cord foot is 1 foot in length of such a pile.

MEASURES OF ROCK, EARTH, ETC.

25 cubic feet of sand	= 1 ton.
18 cubic feet of earth	= 1 ton.
17 cubic feet of clay	= 1 ton.
13 cubic feet of quartz, unbroken in lode	= 1 ton.
18 cubic feet of gravel or earth, before digging	= 27 cubic feet when dug.
20 cubic feet of quartz broken (of ordinary fineness coming from the hole)	= 1 ton contract measurement.

CIRCULAR OR ANGULAR MEASURE

60 Seconds (")	= 1 Minute'
60 Minutes	= 1 Degree°.
360 Degrees	= 1 Circumference	.....C.

Note.—The Standard unit of the circular measure is the degree. Circular or angular measure is used in measuring angles, also in determining latitude and longitude.

A Quadrant is one-fourth of a circle, or 90°.

A Sextant is one-sixth of a circle, or 60°.

LIQUID MEASURES

4 Gills (gi.)	= 1 Pint	.....pt.
2 Pints	= 1 Quart	.....qt.
4 Quarts	= 1 Gallon	.....gal.

In estimating the capacity of cisterns, reservoirs, etc.:

31½ gal.	= 1 Barrel	.....bbl.
63 gal.	= 1 Hogshead	.....hhd.
or, 1 hhd.	= 2 bbl. = 63 gal. = 252 qt. = 504 pt.	

Note.—The barrel and hogshead are not fixed measures, but vary when used for commercial purposes. The capacity of these is found by actual measurement.

APOTHECARIES' FLUID MEASURE

60 Minims (m)	= 1 Fluid drachm	.....f ʒ
8 Fluid drachms	= 1 Fluid ounce	.....f ʒ
16 Fluid ounces	= 1 Pint	.....O.
8 Pints	= 1 Gallon	.....Cong.

Note.—Cong. stands for the Latin *Congius*, a gallon; and O. for *Octavus*, one-eighth, a pint being one-eighth of a gallon.

A common teaspoon holds about one fluid drachm. In this measure the symbols precede the numbers to which they refer.

APOTHECARIES' WEIGHT

20 Grains (gr. xx)	= 1 Scruple	.....ʒ.
3 Scruples (ʒ iij)	= 1 Dram	.....ʒ.
8 Drams (ʒ viij)	= 1 Ounce	.....ʒ.
12 Ounces (ʒ xij)	= 1 Pound	.....lb.

Note.—Medicines are bought in quantities by Avoirdupois weight; thus, curiously, being bought by one measure and sold by another.

DRY MEASURE

2 Pints (pt.)	= 1 Quart	.....qt.
8 Quarts	= 1 Peck	.....pk.
4 Pecks	= 1 Bushel	.....bu.

TROY WEIGHT

24 Grains (gr.)	= 1 Pennyweight	.....pwt.
20 Pennyweights	= 1 Ounce	.....oz.
12 Ounces	= 1 Pound	.....lb.

DIAMOND WEIGHT

16 Parts	= 1 Carat Grain.
4 Carat gr.	= 1 Carat.
1 Carat	= 3⅙ Troy gr., nearly.

ASSAYERS' WEIGHT

1 Carat	= 10 pwt.
1 Carat gr.	= 60 Troy gr.
24 Carats	= 1 Troy lb.

Note.—In weighing diamonds and other gems, the unit generally employed is the Carat. The term Carat is also used to express the fineness of gold. 24 Carat is pure gold, 18 Carat is $\frac{3}{4}$ pure gold, etc.

AVOIRDUPOIS WEIGHT

16 Ounces (oz.)	= 1 Pound.....lb.
100 Pounds	= 1 Hundredweight.....cwt.
20 Hundredweight, or 2000 Pounds	= 1 Ton.....T.

Note.—The Long Ton = 2,240 lbs. It is used in weighing some coarser articles, as iron and coal at the mines; also goods on which duties are paid at the U. S. Custom House.

Following are some approximate measures:

45 drops of water, or a common teaspoonful	= 1 fluid drachm.
A common tablespoonful	= $\frac{1}{2}$ fluid ounce.
A small teacupful, or 1 gill	= 4 fluid ounces.
A pint of pure water	= 1 pound.
4 tablespoonfuls, or a wine glass	= $\frac{1}{2}$ gill.
A common-sized tumbler	= $\frac{1}{2}$ pint.
Four teaspoonfuls	= 1 tablespoonful.

APPROXIMATE SPEED

A man walks.....	3 miles per hour.
A horse trots.....	7 " " "
A horse runs.....	20 " " "
A steamboat sails.....	18 " " "
A sailing vessel sails.....	10 " " "
Slow rivers flow.....	3 " " "
Rapid rivers flow....	7 " " "
A moderate wind blows.....	7 " " "
A storm moves.....	36 " " "
A hurricane moves.....	80 " " "
A rifle ball moves	1,466 feet per second.
Sound moves	1,141 feet per second.
Light moves	192,000 miles per second.
Electricity moves	288,000 miles per second.

USED BY STATIONERS AND THE PAPER TRADE

24 Sheets	= 1 Quire.....qr.
20 Quires	= 1 Ream.....rm.
480 Sheets	= 1 Ream.
2 Reams	= 1 Bundle.....bun.
5 Bundles	= 1 Bale.....B.

IN COUNTING CERTAIN ARTICLES

the following is used:—

12 Units	= 1 Dozen.....	doz.
12 Dozen	= 1 Gross.....	gro.
12 Gross	= 1 Great Gross.....	G. gro.
20 Units	= 1 Score	sc.

A BOOK FORMED OF SHEETS FOLDED

			[(pages)
In 2 leaves	is called a Folio		and makes 4 pp.
In 4	“ “ Quarto, 4to.	“	8 pp.
In 8	“ “ Octavo, 8vo.	“	16 pp.
In 12	“ “ Duodecimo, 12 mo.	“	24 pp.
In 16	“ “ 16 mo.	“	32 pp.
In 18	“ “ 18 mo.	“	36 pp.
In 24	“ “ 24 mo.	“	48 pp.

MENSURATION.—The process of measuring lengths, surface, volume, and capacity, or of determining the same by measurement and calculation. Length may be determined by mechanical measurement; surface and solidity are determined by algebraical and geometrical calculations. The following are the rules for calculating the most important measurements:—

1. To find the circumference of a circle, multiply the diameter by 3.1416.

2. To find the area of a circle, multiply the square of the diameter by the decimal .7854.

3. To find the circumference of an ellipse, multiply half the sum of the two diameters by 3.1416.

4. To find the area of an ellipse, multiply the longer axis or diameter by the shorter, and the product by the decimal .7854.

5. To find the area of a square, multiply one side by itself.

6. To find the area of a rectangle, multiply the length by the breadth, or the base by the height.

7. To find the area of a parallelogram, multiply the base by the perpendicular height.

8. To find the area of a triangle, multiply half the base by the perpendicular height.

9. To find the area of a trapezium, divide the trapezium into two triangles by a line joining two of its opposite angles; the sum of these triangles will be the area of the trapezium.

10. To find the area of a trapezoid, multiply the sum of the two parallel sides by the perpendicular distance between them, and one-half the product will be the area.

11. To find the surface of a sphere, multiply the square of the diameter by 3.1416.

12. To find the surface of a cylinder, multiply the diameter by the height, and that product by 3.1416.

13. To find the solid contents of a right prism, multiply the length, breadth, and height.

14. To find the solid contents of a cylinder, multiply the area of the base by the height.

15. To find the solid contents of a sphere, multiply the cube of the diameter by the decimal .7854.

16. To find the solid contents of a cone, multiply the area of its base by one-third of its slant height.

17. To find the solid contents of the frustum of a cone, add the squares of the two diameters, to this add the product of the two diameters, multiply the sum by the decimal .7854 and the product by one-third the height.

METRIC SYSTEM OF WEIGHTS AND MEASURES.—The Metric System originated in France in 1790, and has been adopted by all European nations except Great Britain and Russia, where it is permissive. Its name comes from the word *meter*, from which all the original factors are derived

The METER, unit of length, is nearly the ten-millionth part of a quadrant of a meridian, of the distance between Equator and Pole. The International Standard Meter is, practically, nothing else but a length defined by the distance between two lines on a platinum-iridium bar at 0° Centigrade, deposited at the International Bureau of Weights and Measures, Paris, France.

The LITER, unit of capacity, is derived from the weight of one kilogram pure water at greatest density, a cube whose edge is one-tenth of a meter and, therefore, the one-thousandth part of a metric ton.

The GRAM, unit of weight, is a cube of pure water at greatest density, whose edge is one-hundredth of a meter, and, therefore, the one-thousandth part of a kilogram, and the one-millionth part of a metric ton.

One silver dollar weighs 25 grams, 1 dime = $2\frac{1}{2}$ grams, 1 five-cent nickel = 5 grams.

The Metric System was legalized in the United States on July 28, 1866, when Congress enacted as follows:—

“The tables in the schedule hereto annexed shall be recognized in the construction of contracts, and in all legal proceedings, as establishing, in terms of the weights and measures now in use in the United States, the equivalents of the weights and measures expressed therein in terms of the Metric System, and the tables may lawfully

be used for computing, determining, and expressing in customary weights and measures the weights and measures of the Metric System."

The following are the tables annexed to the above:—

MEASURES OF LENGTH.

Metric Denominations and Values.		Equivalents in Denominations in Use.
Myriameter.....	10,000 meters.	6.2137 miles.
Kilometer.....	1,000 meters.	0.62137 mile, or 3,280 feet 10 inches.
Hectometer.....	100 meters.	328 feet 1 inch.
Dekameter.....	10 meters.	393.7 inches.
Meter.....	1 meter.	39.37 inches.
Decimeter.....	1-10 of a meter.	3.937 inches.
Centimeter.....	1-100 of a meter.	0.3937 inch.
Millimeter.....	1-1000 of a meter.	0.0394 inch.

MEASURES OF SURFACE.

Metric Denominations and Values.		Equivalents in Denominations in Use.
Hectare.....	10,000 square meters.	2.471 acres.
Are.....	100 square meters.	119.6 square yards.
Centare.....	1 square meter.	1,550 square inches.

MEASURES OF CAPACITY.

METRIC DENOMINATIONS AND VALUES.			EQUIVALENTS IN DENOMINATIONS IN USE.	
Names.	Number of Liters.	Cubic Measure.	Dry Measure.	Liquid or Wine Measure.
Kiloliter or stere.	1,000	1 cubic meter.....	1.308 cubic yards ...	264.17 gallons.
Hectoliter.....	100	1-10 of a cubic meter	2 bush. and 3.35 pecks. ...	26.417 gallons.
Dekaliter.....	10	10 cubic decimeters.....	9.08 quarts.....	2.6417 gallons.
Liter.....	1	1 cubic decimeter.....	0.908 quart.....	1.0567 quarts.
Deciliter.....	1-10	1-10 of a cubic decimeter.	6.1022 cubic inches.....	0.845 gill.
Centiliter.....	1-100	10 cubic centimeters.....	0.6102 cubic inch.....	0.338 fluid ounce.
Milliliter.....	1-1000	1 cubic centimeter.....	0.061 cubic inch.....	0.27 fluid dram.

WEIGHTS.

METRIC DENOMINATIONS AND VALUES.			EQUIVALENTS IN DENOMINATIONS IN USE.
Names.	Number of Grams.	Weight of What Quantity of Water at Maximum Density.	Avoirdupois Weight.
Miller or tonneau.....	1,000,000	1 cubic meter.....	2204.6 pounds.
Quintal.....	100,000	1 hectoliter.....	220.46 pounds.
Myriagram.....	10,000	10 liters.....	22.046 pounds.
Kilogram or kilo.....	1,000	1 liter.....	2.2046 pounds.
Hectogram.....	100	1 deciliter.....	3.5274 ounces.
Dekagram.....	10	10 cubic centimeters.....	0.3527 ounce.
Gram.....	1	1 cubic centimeter.....	15.432 grains.
Decigram.....	1-10	1-10 of a cubic centimeter.....	1.5432 grains.
Centigram.....	1-100	10 cubic millimeters.....	0.1543 grain.
Milligram.....	1-1000	1 cubic millimeter.....	0.0154 grain.

APPROXIMATE EQUIVALENTS.

A meter is about a yard; a kilo is about 2 pounds; a liter is about a quart; a centimeter is about $\frac{1}{3}$ inch; a metric ton is about same as a ton; a kilometer is about $\frac{1}{2}$ mile; a cubic centimeter is about a thimbleful. A nickel weighs 5 grams.

The diameter of the nickel is two centimeters; therefore, five of them placed in a row will give the length of the decimeter. As the kiloliter is the cubic meter, this furnishes the key to the measurement of capacity. The nickel therefore gives the key to the entire system.

MONEY.—The term "Almighty Dollar" seems to have been first used by Washington Irving. Skins, cattle, shells, corn, pieces of cloth, mats, salt, and many other commodities have at different times and places been used as money.

The largest circulation of paper money is that of the U. S., being \$700,000,000; while Russia has \$670,000,000.

Gold was first discovered in California, in 1848.

Money simply means a common medium of exchange.

The first currency used in this country was the Indian wampum.

National banks were first established in this country in 1816.

The highest denomination of U. S. legal tender notes is \$10,000.

Sterling signifies money of the legalized standard of coinage of Great Britain and Ireland. The term, according to one theory, is a corruption of Easterling—a person from North Germany, on the continent of Europe, and therefore from the east in geographical relation to England. The Easterlings were ingenious artisans who came to England in the reign of Henry III., to refine the silver money, and the coin they produced was called moneta Esterlingorum—the money of the Easterlings.

The continental money consisted of bills of credit issued by Congress during the War of Independence, which were to be redeemed with Spanish milled dollars. \$200,000,000 worth were issued but they were never redeemed and caused much suffering.

TABLE SHOWING THE VALUE OF FOREIGN COINS AND PAPER NOTES IN AMERICAN MONEY BASED UPON THE VALUES EXPRESSED IN THE FOREGOING TABLE.

NUMBER.	British £ Sterling.	German Mark.	French Franc, Italian Lira.	Chinese Tael (Shanghai).	Dutch Florin.	Indian Rupee.	Russian Gold Ruble.	Austrian Crown.
1	\$ 4.86,6½	\$ 0.23,8	\$ 0.19,3	\$ 0.63,2	\$ 0.40,2	\$ 0.32,4	\$ 0.51,5	\$ 0.20,3
2	9.73,3	0.47,6	0.38,6	1.26,4	0.80,4	0.64,8	1.03	0.40,6
3	14.59,9½	0.71,4	0.57,9	1.89,6	1.20,6	0.97,2	1.54,5	0.60,9
4	19.46,6	0.95,2	0.77,2	2.52,8	1.60,8	1.29,6	2.06	0.81,2
5	24.33,2½	1.19	0.96,5	3.16	2.01	1.62	2.57,5	1.01,5
6	29.19,9	1.42,8	1.15,8	3.79,2	2.41,2	2.04,4	3.09	1.21,8
7	34.06,5½	1.66,6	1.35,1	4.42,4	2.81,4	2.36,8	3.60,5	1.42,1
8	38.93,2	1.90,4	1.54,4	5.05,6	3.21,6	2.59,2	4.12	1.62,4
9	43.79,8½	2.14,2	1.73,7	5.68,8	3.61,8	2.91,6	4.63,5	1.82,7
10	48.66,5	2.38	1.93	6.32	4.02	3.24	5.15	2.03
20	97.33	4.76	3.86	12.64	8.04	6.48	10.30	4.06
30	145.99,5	7.14	5.79	18.96	12.06	9.72	15.45	6.09
40	194.66	9.52	7.72	25.28	16.08	12.96	20.60	8.12
50	243.32,5	11.90	9.65	31.60	20.10	16.20	25.75	10.15
100	486.65	23.80	19.30	63.20	40.20	32.40	51.50	20.30

MONEY, VALUE OF FOREIGN.—

COUNTRY.	Standard.	Monetary Unit.	Value in U. S. Gold Dollar.	Coins.
Argentine Rep....	Gold..	Peso	\$0.96,5	Gold: argentine (\$4.82,4) and ½ argentine. Silver: peso and divisions.
Austria-Hungary..	Gold..	Crown .....	.20,3	Gold: former system—4 florins (\$1.92,9), 8 florins (\$3.85,8), ducat (\$2.28,7), and 4 ducats (\$9.14,9). Silver: 1 and 2 florins. Gold: present system—20 crowns (\$4.05,2) and 10 crowns (\$2.02,6). Gold: 10 and 20 francs. Silver: 5 francs. Silver: boliviano and divisions. Gold: 5, 10, and 20 milreis. Silver: ½, 1, and 2 milreis.
Belgium	Gold..	Franc .....	.19,3	
Bolivia	Silv'r*	Boliviano .....	.42,8	
Brazil	Gold..	Milreis .....	.54,6	
Canada	Gold..	Dollar	1.00	
Central America..	Silver	Peso† .....	.45,1	Silver: peso and divisions.
Chile	Gold..	Peso .....	.42,8	Gold: escudo (\$1.82,5), doubloon (\$3.65), and condor (\$7.30). Silver: peso and divisions.
China	Silver	Tael... { Shanghai Haikwan Tientsin. Canton...	.63,2 .70,4 .67,0 .68,9	
Colombia	Silver	Peso .....	.42,8	Gold: condor (\$9.64,7) and double-condor. Silver: peso.
Costa Rica	Gold..	Colon. ....	.46,5	Gold: 2, 5, 10, and 20 colons (\$9.30,7). Silver: 5, 10, 25, and 50 centimos.
Cuba	Gold..	Peso .....	.92,6	Gold: doubloon (\$5.01,7); Alphonse (\$4.82,3). Silver: peso.
Denmark	Gold..	Crown .....	.26,8	Gold: 10 and 20 crowns.
Ecuador	Silver	Sucre .....	.48,7	Gold: 10 sucres (\$4.86,65). Silver: sucre and divisions.
Egypt	Gold..	Pound (100 piasters)	4.94,3	Gold: pound (100 piasters), 5, 10, 20, and 50 piasters. Silver: 1, 2, 5, 10, and 20 piasters.
Finland	Gold..	Mark .....	.19,3	Gold: 20 marks (\$3.85,9), 10 marks (\$1.93).
France	Gold..	Franc .....	.19,3	Gold: 5, 10, 20, 50, and 100 frs. Silver: 5 frs.
Germany	Gold..	Mark .....	.23,8	Gold: 5, 10, and 20 marks.
Great Britain.....	Gold..	Pound sterling	4.86,6½	Gold: sovereign (pound sterling) and ½ sovereign.
Greece	Gold..	Drachma .....	.19,3	Gold: 5, 10, 20, 50, and 100 drachmas. Silver: 5 drachmas.
Hayti	Gold..	Gourde .....	.96,5	Gold: 1, 2, 5, and 10 gourdes. Silver: gourde and divisions.
India	Gold..	Pound sterling †	4.86,6½	Gold: sov. (\$4.86,65). Sil.: rupee and div'ns.
Italy	Gold..	Lira .....	.19,3	Gold: 5, 10, 20, 50, and 100 lire. Silver: 5 lire.
Japan	Gold..	Yen....	.49,8	Gold: 1, 2, 5, 10, and 20 yen. Silver: 10, 20, and 50 sen.
Mexico	Silver	Dollar..	.46,4	Gold: dollar (\$0.98,3), 2½, 5, 10, and 20 dollars. Silver: dollar (or peso) and divisions.
Netherlands	Gold..	Florin .....	.40,2	Gold: 10 florins. Silver, ½, 1, and 2½ florins.
Newfoundland....	Gold..	Dollar	1.01,4	Gold: 2 dollars (\$2.02,7).
Norway	Gold..	Crown .....	.26,8	Gold: 10 and 20 crowns.
Peru	Gold..	Sol .....	.48,7	Gold: libra (\$4.86,65). Silver: sol and div'ns.
Portugal	Gold..	Milreis	1.08	Gold: 1, 2, 5, and 10 milreis.
Russia	Gold..	Ruble .....	.51,5	Gold: imperial (\$7.71,8) and ½ imperial, 7½ rubles (\$3.86). Silver: ¼, ½, and 1 ruble.
Spain	Gold..	Peseta .....	.19,3	Gold: 25 pesetas. Silver: 5 pesetas.
Sweden	Gold..	Crown .....	.26,8	Gold: 10 and 20 crowns.
Switzerland	Gold..	Franc .....	.19,3	Gold: 5, 10, 20, 50, & 100 francs. Silver: 5 fr's.
Turkey	Gold..	Piaster .....	.04,4	Gold: 25, 50, 100, 250, and 500 piasters.
Uruguay	Gold..	Peso	1.03,4	Gold: peso. Silver: peso and divisions.
Venezuela	Gold..	Bolivar .....	.19,3	Gold: 5, 10, 20, 50, and 100 bolivars. Silver: 5 bolivars.

* The coins of silver-standard countries are valued by their pure silver contents, at the average market price of silver for the three months preceding the date of this circular.

† Not including Costa Rica.

‡ The sovereign is the standard coin of India, but the rupee (\$0.32,4) is the money of account, current at 15 to the sovereign.

ACRE.—A standard land measure. A square, 12.649 rods, or 69.57 yards, or 208.71 feet on a side, contains one acre. It is composed of

10 square chains, a surveyor's chain being 66 feet. An acre is contained by a rectangle of the following dimensions in rods:—

$$1 \times 160$$

$$3 \times 53\frac{1}{3}$$

$$5 \times 32$$

$$7 \times 22\frac{6}{7}$$

$$9 \times 17\frac{7}{9}$$

$$11 \times 14\frac{6}{7}$$

$$12 \times 13\frac{1}{3}$$

$$12\frac{1}{2} \times 12\frac{4}{5}$$

$$12\frac{1}{20} \times 12\frac{1}{20}$$

There are in an acre 4,840 sq. yds.; 43,560 sq. ft.

The acre in the United States and that in England are the same. Taking this as 1:—The Scotch is 1.27; the Irish, 1.62; the French Hectare, 2.47; the German Morgen, 0.65; the ancient Roman Jugerum, 0.66 and the Greek Plethron, 0.24.

ALMIGHTY DOLLAR.—A phrase first used by Washington Irving in his sketch of a Creole Village, in 1837.

ANGEL.—A gold coin stamped with the figure of an angel, weight four pennyweights, value 6 s. 8 d. in the time of Henry VI. and at 10 s. in Elizabeth's time, 1562.

AVOIRDUPOIS.—System of weights and measures applied to all goods except precious metals and precious stones. The grain is the foundation of the system. A cubic inch of water weighs 252,458 grains; 7,000 of such grains make an A. lb.; and 5,760 a Troy lb. The A. lb. is divided into 16 ounces of $437\frac{1}{2}$ grains and each of these again into 16 drams of $27\frac{11}{32}$ grains each. (See TABLES OF WEIGHTS AND MEASURES.)

BIMETALLISM.—The use of two metals as money, at relative values fixed by law; the doctrine that two metals can and should simultaneously and in the same country be established as standards of value and bear to each other an arbitrary ratio. As here used, the term generally refers to the use of gold and silver at a relative value fixed by the government. Monometallism is the theory that only one metal should be used as a money standard.

BLAND DOLLAR.—An unofficial, but popular, designation of that silver dollar which was coined by the U. S. for the first time in 1878. It takes its name from Richard P. Bland, of Mo., who in the House of Representatives, in 1876, introduced a bill for the free and unlimited coinage of silver. It passed the House and, in modified form, the Senate. It was vetoed by President Hayes, Feb. 28, 1878, but was carried over his veto the same day. In the form in which it became a law, it provided that the secretary of the treasury should each month purchase not less than \$2,000,000 nor more than \$4,000,000

worth of silver bullion to be coined into dollars of $412\frac{1}{2}$ grains each. It was repealed by the Sherman Act of 1890.

BOOKS, SIZES OF.—When a sheet is folded in

2	leaves	it	makes	a folio	of 4 pp.
4	"	"	"	"	quarto, 4to, of 8 pp.
8	"	"	"	"	an octavo, 8vo, of 16 pp.
12	"	"	"	"	a duodecimo, 12mo, of 24 pp.
16	"	"	"	"	" 16mo, of 32 pp.
18	"	"	"	"	an 18mo, of 36 pp.
24	"	"	"	"	a 24mo, of 48 pp.

The following are the approximate sizes of books:—

Royal Folio.....	19	inches	x	12
Demy.....	18	"	x	11
Super Imp. Quarto (4to).....	1½	"	x	13
Royal 4to.....	12½	"	x	10
Demy 4to.....	11½	"	x	8½
Crown 4to.....	11	"	x	8
Royal Octavo.....	10½	"	x	6½
Medium 8vo.....	9½	"	x	6
Demy 8vo.....	9	"	x	5½
Crown 8vo.....	7½	"	x	4½
Foolscap 8vo.....	7	"	x	4
12mo.....	7	"	x	4
16mo.....	6½	"	x	4
Square 16mo.....	4½	"	x	3½
Royal 24mo.....	5½	"	x	3¼
Demy 24mo.....	5	"	x	2¾
Royal 32mo.....	5	"	x	3
Post 32mo.....	4	"	x	2½
Demy 48mo.....	3¾	"	x	2¼

BOOK-TYPE, SMALLER SIZES OF.—Semi-nonpareil is the smallest size of type, 288 lines being required to make a foot. There are no fewer than 190 different widths or thicknesses of types used in printing, which are of all sizes, from the immense poster types one is accustomed to see on hoardings, down to an infinitely small size that can be read only by the aid of a magnifying glass. The body of *Tit-Bits* is printed in bourgeois type, of which 102 lines go to the foot. There are, at least, eleven sizes of type smaller than the bourgeois, as shown in the following list, namely:—

Types.	Lines to the ft.
Bourgeois.....	102
Brevier.....	111
Minion.....	122
Emerald.....	128
Nonpareil.....	144

Types	Lines to the ft.
Ruby Nonpareil.....	162
Ruby.....	166
Pearl.....	179
Diamond	204
Gem... ..	222
Brilliant.....	238
Semi-Nonpareil	288

A little book called the "Mite" was recently published. It is set in brilliant, and the pages are ten centimeters by seven centimeters. The Oxford University Press publish an edition of the Bible in this small type. Another typographical curiosity is a copy of a French translation of Dante's "Divine Comedy," which was exhibited at the Paris Exhibition of 1882. The tiny volume is less than half an inch square, and consists of 500 pages, to make which only two sheets of printer's paper were required. It contains in all 14,323 verses, and is set in semi-nonpareil.

BRICK WORK, MEASUREMENT OF.—Work is generally estimated by the 1,000 brick, on the basis of a wall a brick and a half thick, which is regarded as the standard to which all work must conform.

To find the contents of a wall which varies from the standard,—

Multiply the superficial contents of the wall by the number of half bricks in thickness and take one-third of the product.

A brick is $8\frac{1}{2}$ inches long, 4 inches wide, and $2\frac{1}{2}$ inches thick; 20 bricks, laid dry, form a cubic foot. So that, with the dimensions of a wall given, we may find the number of bricks required by multiplying the length, breadth, and thickness in feet and fractions of a foot, and dividing the product by 20—or by $22\frac{1}{2}$ if the bricks are smaller than the average given. The quotient will be the number of bricks required.

BUSHEL.—A dry measure used for fruit, grains, and vegetables. It contains 8 gallons of 267.27 cubic inches, and holding 10 lbs. of distilled water. Thus the bushel contains 80 lbs. of water, and measures 2,218.2 cubic inches. The U. S. Government standard for dry measure is the "Winchester bushel," being a cylindrical vessel having an inside diameter of $18\frac{1}{2}$ inches, and 8 inches deep and containing 2,150.42 cubic inches.

A box 16 in. x 12 in. x 11.2 in. will hold a bushel.

A box 12 in. x 11.2 in. x 8 in. will hold half a bushel.

CENT.—Vt. was the first state to issue copper cents. In June, 1785, she granted authority to Ruben Harmon, Jr., to make money

for the state for two years. In Oct. of the same year, Connecticut granted the right to coin £10,000 in copper cents, known as the Connecticut cent of 1785. Mass., in 1786, established a mint and coined \$60,000 in cents and half cents. In the same year, N. J. granted the right to coin 10,000 at 15 coppers to the shilling. In 1781, the Continental Congress directed Robert Morris to investigate the matter of governmental coinage. He proposed a standard based on the Spanish dollar, consisting of 100 units, each unit to be called a cent. His plan was rejected. In 1784, Jefferson proposed to Congress that the smallest coin should be of copper, and that 200 of them should pass for one dollar. The plan was adopted, but in 1786, 100 was substituted. In 1792 the coinage of copper cents, containing 264 grains, and half cents in proportion, was authorized; their weight was subsequently reduced. In 1853 the nickel cent was substituted and the half cent discontinued, and in 1864 the bronze cent was introduced, weighing 48 grains and consisting of 95 per cent. of copper, and the remainder of tin and zinc.

CHAIN, ENGINEER'S.—Is used by railroad and canal engineers. It consists of 100 links, each 1 foot long.

CHAIN, GUNTER'S.—Used in land surveying, is a measure of 100 links of 7.92 inches each. It is 4 rods or 66 feet long.

COINAGE LAWS.—The importance of a sound system of coinage early impressed itself upon the founders of the Government, and laws were passed to regulate the proportion of metal in the different coins and the ratio of value of one metal to another. Among the more important of these laws was the act of Apr. 2, 1792, which provided that any holder of gold or silver could have the same coined at the mint, receiving for it coins of the same metal in equal weight. The standard of fineness of gold was 11 parts pure to one of alloy; for silver, 1,485 pure to 179 of alloy; the ratio of gold to silver was one to 15, and silver and gold coins were legal tender. By the act of Mar. 3, 1795, the treasurer kept 24 cents per ounce for silver below standard and four cents per ounce of gold, as toll for coinage. Under the same law the President reduced the weight of the copper coin one pennyweight, 16 grains, in each cent, and in this proportion in each half-cent. By the law of Apr. 21, 1800, a sum sufficient to pay for refining was retained in the case of deposits of gold and silver below standard, and by that of May 8, 1828, enough to pay for materials and waste was deducted from silver bullion needing the test. The act of June 28, 1834, provided that one-half of one per cent. should be deducted from all standard gold and silver, if paid for in coin within five days from deposit. Under the law of Jan. 18,

1837, all gold and silver had to be nine-tenths pure, with one-tenth alloy, and was to be legal tender for all sums. Feb. 21. 1853, the half-dollar was reduced from $206\frac{1}{2}$ grains to 192 grains; the same proportion was applied to the lesser silver coins, and they were made legal tender in sums not exceeding \$5.00. Private deposits were not received for conversion into these coins, and the charge for refining was one-half of one per cent. The "trade dollar" dates from 1873, when the law passed that year ordained that its weight should be 420 grains and of the half-dollar 193 grains; these coins to be legal tender up to \$5.00. The coinage of silver dollars of full legal tender value was left unprovided for, and silver bullion could be deposited for coinage into trade dollars only, and gold for coinage for the benefit of the depositor. Directors of mints were empowered to buy silver for coins below the dollar, and one-fifth of one per cent. was charged for the conversion of standard gold into coin and standard silver into trade dollars. Silver coins, trade dollars excepted, were made exchangeable at par for gold coins in sums not in excess of \$100. In 1875 gold coinage was released from charges and in 1877 Congress decreed that the trade dollar should cease to be legal tender. By the law of Feb. 28, 1878, the present silver dollar of $412\frac{1}{2}$ grains came into existence, and was made legal tender for all debts. The secretary of the treasury was authorized to buy at market value not less than \$2,000,000 nor more than \$4,000,000 worth of silver bullion each month and to coin it into dollars. In 1879 silver coins of less than \$1.00 were made legal tender to the amount of \$10.00. In 1890, when the law of 1878 was repealed, the secretary of the treasury was authorized to buy 4,500,000 ounces of silver bullion each month, paying for it with legal tender notes, and making a sufficient monthly coinage to redeem the notes. The silver-purchase clause of the act was repealed in 1893.

COINS, METRIC SYSTEM IN.—It may not be generally known that we have in the nickel five-cent piece of our coinage a key to the tables of the linear measures and weights of the metric system. The diameter of this coin is two centimeters and its weight is five grams. Five of them placed in a row will, of course, give the length of the decimeter; and two of them will weigh a decagram. As the liter is a cubic decimeter, the key to the measure of length is also the key to measures of capacity. Any person, therefore, who is fortunate enough to own a five-cent nickel may be said to carry in his pocket the entire metric system of weights and measures.

CRITH (Greek, *κριθή*, a barleycorn, a small weight).—In chemistry the unit for estimating the weight of aëriform substances;—the weight

of a liter of hydrogen at 0° centigrade, and with a tension of 76 centimeters of mercury. It is 0.0896 of a grain, or 1.38274 grains.

CUBIT (Latin, *cubitus*, *cubitus*, an elbow, an ell).—An ancient measure of length, being the distance from the elbow to the extremity of the middle finger. In England the cubit is 18 inches; the Roman cubit was 17.47 inches; the Greek 18.20; and the Hebrew somewhat longer.

DECIMAL SYSTEM.—That system of weights and measures in which the unit or standard is divided into tenths and multiples of tens. It is applied to the U. S. money system, and the French metric system. (See WEIGHTS AND MEASURES.)

DEGREE.—(1) The 360th part of a circumference. (2) A unit in thermometric measurement; that of Fahrenheit's scale being the 180th part of the distance between the freezing and boiling points; in the Centigrade system it is the 100th part, and in Réaumur's the 80th part of the distance between zero (the freezing point) and the boiling point.

DEMONETIZATION OF METAL.—When a metal is deprived of its standard monetary value and thus made merely a commodity, it is said to be demonetized.

DIME.—The smallest piece of silver now coined by the U. S., one-tenth of a dollar in value. The word is taken from the French *dixième*, one-tenth, and was spelled "disme" on some of the first coins. The dime was authorized in 1792 with a weight of 41.6 grains; reduced in 1853 to 38.4 grains. The first dimes were issued in 1796.

DOLLAR.—Derived from *daler* or *thaler*. The first American silver dollar was modeled after the Spanish milled dollar, and was authorized by act of Congress in 1792. It was first coined in 1794 and weighed 416 grains, 371 $\frac{1}{4}$ grains being of silver and the remainder alloy. In 1837 the weight was reduced to 412 $\frac{1}{2}$ grains for use in trade with China and Japan, known as the "trade dollar." The gold dollar was issued under the act of Mar. 3, 1849, its coinage being discontinued in 1890. The act of Feb. 12, 1873, suspended the coinage of silver dollars—trade dollars excepted—and made the gold dollar the standard of value.

EAGLE.—The \$10 gold coin of the U. S. Its coinage was authorized in 1792. Coined first in 1794. It has ever since been a legal tender to any amount. The first delivery was of 100 eagles Sept. 22, 1795. Coinage was suspended in 1805 and resumed in 1837. It takes its name from the figure of the national bird which is stamped on the reverse.

FARTHING.—An English coin; was originally coined in silver. It was first coined in copper by Charles II., in 1665. It is worth about a half cent. Four farthings make a penny, worth $2\frac{1}{3}$ cents.

FIAT MONEY.—A proposed circulating medium often heard of during the greenback delusion that followed the Civil War. The term was applied to projected irredeemable paper currency, which its advocates claimed could be made valuable, though it had neither intrinsic worth, nor the promise to pay, by the mere governmental assertion of its equality and identity with money of known, accepted, and established excellence. "Fiat," a Latin word, means "Let it be done,"—Say it is money, and it is money.

FIVE-CENT PIECE.—A silver half-dime of 20.8 grains; was the first coin struck by the U. S. mint. In 1853 the weight was made 19.2 grains. This coin was not issued in 1798, 1799, 1804, or from 1806 to 1828. The nickel five-cent piece dates from 1866, when the legal tender of five-cent pieces was reduced from \$5.00 to 30 cents. No silver half-dimes have been coined since 1873.

FURLONG.—(As long as a furrow.) A measure of length, 220 yds., or the eighth part of a mile.

GALLON.—A liquid measure, composed of four quarts, eight pints, or 32 gills. The standard liquid gallon of the U. S. contains 231 cubic inches; the imperial gallon of Great Britain 277,274 cubic inches.

GOLD AND SILVER PRODUCTION IN 500 YEARS.

COUNTRIES	GOLD			SILVER		
	Tons	Value	Ratio	Tons	Value	Ratio
Africa	740	\$ 520,000,000	7.1	....	.....	....
Australia.....	1,840	1,290,000,000	17.8	....	.....	....
Austria.....	460	325,000,000	4.4	7,930	\$ 305,000,000	4.1
Brazil	1,040	725,000,000	10.0	....	.....	....
Germany.....	....	.....	....	8,470	325,000,000	4.4
Mexico.....	....	.....	....	78,600	3,040,000,000	40.7
Peru.....	....	.....	....	72,000	2,770,000,000	37.3
Russia	1,235	865,000,000	12.0	3,200	120,000,000	1.7
Spanish America.....	2,220	1,550,000,000	21.5	....	.....	....
United States.....	2,042	1,430,000,000	19.7	11,600	445,000,000	6.08
Other Countries.....	778	535,000,000	7.5	11,200	430,000,000	5.8
The World.....	10,355	\$7,240,000,000	100.0	193,000	\$7,435,000,000	100.0

GRAMME.—The unit of the standard of weight in the French system. It is determined by the weight of a cubic centimeter of distilled water at 0° Centigrade. It is equal to 15.43248 grains Troy.

GRANBY TOKEN.—An unauthorized coin issued by John Higley, of Granby, Conn., in 1737. It was made of copper and on the obverse

bore a deer, with the words "Value me as you please," the Roman numerals III., and a crescent. The design on the reverse consisted of three hammers on a triangular field, each bearing a crown. The legend was, "I am good copper."

GREENBACKS.—The popular name for the legal tender treasury notes, printed on one side in green ink, issued by the Government during the Civil War. The right of the Government to issue bills of credit was disputed by many statesmen and financiers, but the exigencies of the time seemed to render some such measure necessary, and the Supreme Court finally established their validity. Issues of \$150,000,000 each were authorized by the laws of Feb. 25 and July 11, 1862, and Mar. 3, 1863. The result was that, as compared with greenbacks, gold was held at an average of 220 throughout 1864 and at one time, actually rose to a premium of 285, and did not again touch par with greenbacks till Dec. 17, 1878, nearly 17 years after the last previous sale of gold at par. By the specie-resumption act of Jan. 14, 1875, it was ordered that on and after Jan. 1, 1879, all legal tender notes presented to the assistant treasurer of the U. S. at his office in N. Y., should be redeemed in coin. The term "Greenback" has been applied to other forms of U. S. securities printed in green ink.

GUINEA.—A gold coin formerly current in England. It took its name from the gold which came from Guinea in West Africa. It was of 21 shillings value; coined first in the reign of Charles II. (1664) and was superseded by the sovereign, of 20 shillings, in 1817. Though it is no longer current, it is used as a measure of value.

HEIGHT, MEASUREMENT OF.—This is done in one of four ways: by trigonometry; by leveling; by the barometer to test the atmospheric pressure at top and bottom; and by finding the boiling point of water at top and bottom by the thermometer.

LAND SURVEYING.—An important application of mathematics to the measurement of an area of land, whether small or large. It requires a thorough acquaintance with geometry, trigonometry, and the theory and use of the instruments employed for the determination of angles.

LATH WORK.—The standard size of laths is 4 feet long, $1\frac{1}{2}$ inches wide, and $\frac{3}{8}$ of an inch thick. They are sold in bunches containing 50 each. One bunch will cover about 3 square yards of wall space. Lathing is measured by the square yard, one-half of the surface of openings being deducted.

LEGAL TENDER CASES.—During the financial emergency caused by the Civil War, Congress in 1862 issued \$150,000,000 of treasury notes. The law authorizing their issue made them legal tender for all private debts and public dues except duties on imports and interest on

the public debt. The constitutionality of the act was frequently disputed, especially in its application to debts contracted prior to its passage, and the Supreme Court was called upon in several cases to decide the question. State courts generally maintained the constitutionality of the law. The Supreme Court, in 1869, in the case of *Hepburn vs. Griswold*, maintained the validity of the law only in so far as it did not affect contracts made prior to its passage. In 1870 this decision was overruled, and the constitutionality of the law in its application to preëxisting debts was maintained.

MINT.—By an act of Congress passed Apr. 2, 1792, the first U. S. mint was established at Philadelphia. The first machinery and first metal used were imported, and copper cents were coined the following year. In 1794 silver dollars were made, and the succeeding year gold eagles. In 1835 branch mints were established at New Orleans, La., at Charlotte, N. C., and at Dahlonega, Ga.; in 1852 at San Francisco, Cal.; in 1864 at Dalles City, Ore.; and in 1870 at Carson City, Nev. The mints at Charlotte and Dahlonega were suspended in 1861, and that at Dalles in 1875, that at Carson City in 1885, and that at New Orleans from 1860 to 1879. Assay offices, which were formerly considered branches of the mint, were established at N. Y. in 1834; Denver, Col., in 1864; Boisé City, Idaho, in 1872, and at other places at later dates.

NEW ENGLAND SHILLING.—A rude coin minted in Boston from the year 1652, bearing the denomination mark "XII," signifying 12d., and valued at about 18¼ cents.

PINE TREE MONEY.—The general court of Mass., May 27, 1652, passed an act establishing a mint in Boston. John Hull was appointed mint master, and the coins manufactured under his supervision were called "Pine Tree Money," from a design on the obverse of a pine tree encircled by a grained ring, with the legend "Massachusetts In." Their coinage was discontinued at Hull's death, Oct. 1, 1683.

PISTOLE.—A name formerly given to a gold coin circulated in Spain, Italy, and some parts of Germany. Its value in U. S. currency is \$3.90.

POSTAGE CURRENCY.—A form of fractional paper currency, resembling postage stamps in appearance, used in the U. S. for a brief period during the Civil War.

QUARTER DOLLAR.—The Continental Congress in 1786 decided upon certain coins. Among these was a quarter dollar to be made of silver. It was first issued in 1796 and its weight was fixed at 104 grains. In 1853 it was reduced to 93 grains, and by the coinage act

of 1873 was raised to 96.54 grains, or 0.2 of an oz., the present weight, and 900 fine. The coin is legal tender to the amount of \$5. The quarter dollar of 1827 is one of the rare coins of the U. S. There were no issues of this coin during the years 1798 to 1803; 1808 to 1815, nor during 1817, 1824, 1826, and 1830.

QUARTER EAGLE.—A gold coin of the U. S., authorized in 1792 and first coined in 1796. It is legal tender to any amount. The present weight of the coin is 0.134 oz. or 64.5 grains, and the fineness 900. It was coined under act of Congress June 28, 1834.

QUINT.—One of the silver coins presented by Robert Morris to the Continental Congress in 1783 for consideration as a national coin. It weighed 5 pennyweight, 15 grains, and was equal to 35 cents. On the reverse was "U. S. 500" surrounded by a wreath and legend "Libertas, Justitia," on the obverse was an eye, 13 points crossing (equidistant) a circle of as many stars and the legend "Nova Constellatio." The coin was not accepted and afterward became known as the Nova Constellatio coinage.

SHINPLASTERS.—This name was first applied to the depreciated Continental paper currency after the Revolutionary War. Later it was applied to other issues of paper money.

TRADE DOLLAR.—Issued by the United States, 1874-78, for use in trade with China. It was legal tender to the amount of \$5.00 until 1876. The weight of the trade dollar was 420 grains; that of the standard American silver dollar, $412\frac{1}{2}$ grains. The treasurer was authorized by an act passed in 1887 to redeem in standard silver dollars all trade dollars presented within the following six months.

TREASURY NOTES.—The first issue of treasury notes was necessitated by the War of 1812. They amounted to \$36,000,000 with $5\frac{2}{3}$ per cent. interest, and were receivable for all dues to the government but were not a legal tender. From the panic of 1837 to the close of the Mexican War, treasury notes to the amount of \$73,000,000 were issued, and an issue of \$53,000,000 followed the panic of 1857. In 1862 an issue of \$150,000,000 of non-interest bearing treasury notes were authorized. These were legal tender and were known as "greenbacks." The U. S. "seven-thirties," of which \$830,000,000 were issued, were a variety of treasury notes, and treasury notes were issued to pay for the monthly purchases of bullion authorized by the Sherman Act of 1890.

TWENTY-CENT PIECE.—This U. S. silver coin was minted from 1875 to 1878, when its issue was discontinued. It weighed 77.16 grains, was legal tender up to \$5, and circulated principally on the Pacific coast, for which it was especially intended.

WAMPUM.—The shells strung together by the Indians and used as money or worn as ornaments. The round clam-shells were preferred for this purpose though other kinds were also commonly used.

MERGER.—Absorption of a lesser by a greater debt or obligation.

MOUNTAINS, ACCURATE METHOD OF MEASURING THEM.—There are three ways of accomplishing this measurement, so far as their height is concerned, namely: by the barometer, by observation of the atmospheric pressure; by observation of the boiling point of water; and by calculation from data supplied by accurate surveying instruments, the necessary formulæ being supplied by trigonometry. This last plan, known as triangulation, is by far the most accurate method. The first method is based on the fact that the atmosphere is densest at the surface of the earth, having there to support the weight of the whole column of air above it, and the decrease in pressure being known by the barometer enables the observer, after due allowances, according to temperature, to work out the height of the mountain. The second method of observing the boiling point of water by the thermometer is based on the well-known fact that water boils at 212° Fahr., at the level of the sea, or at a pressure of 30 in. of mercury; and as the relation between the pressure and the boiling point is known exactly, the height can be measured in this way more or less accurately. Triangulation is the name applied to the process of calculation by measuring the angles of triangles. The angles having been measured by the theodolite, and knowing them and one side, trigonometry enables the surveyor to calculate the other two. Measuring by this method is done with wonderful correctness. Two instances of this accuracy are given in Thornton's "Physiography," one of a plain and the other of a mountain. The length of Salisbury Plain was ascertained with a result which was less than 5 in. from the measured value. The height of Ben-Macdhui was calculated to be 4,295.6 ft., and this height, when checked, proved to be within $1\frac{1}{2}$ in.

NET.—The clear amount; what remains after deducting charges and expenses.

OVERDRAW.—To call for more money than there is on deposit.

PAPER, NEGOTIABLE.—Is documentary evidence of debt, and includes promissory notes, due bills, drafts, checks, deposit certificates, bills of exchange, bank bills, and treasury notes. Such documentary evidence of debt must contain a promise to pay or an order for another to pay. One receiving such paper must see that the amount is exactly stated, that the paper is transferable and signatures and names are correctly written.

NATIONAL DEBTS.—Compiled from the summary prepared by the Bureau of Statistics, Treasury Department.

COUNTRIES	Year	NATIONAL DEBTS			Revenue	Expenditure	COMMERCE WITH THE UNITED STATES	
		Total	Inter'st Per Cent.	Per Capita			Exports from United States to—	Imports into United States from—
Argentina.....	1900	\$509,604,444	4½-6	\$128.85	\$63,339,188	\$63,283,632	\$11,558,237	\$8,114,304
Australasia.....	1900	1,183,055,000	3 -5	263.90	167,335,000	161,738,000	26,725,702	5,468,196
Austria-Hung'ry	1900	1,154,791,000	3 -4	25.80	73,659,000	*73,659,000	7,046,819	9,079,667
Austria.....	1900	642,194,000	3 -5	24.89	215,237,000	215,208,000	(†)	(†)
Hungary.....	1900	904,941,000	3 -4	47.75	209,001,000	208,509,000	(†)	(†)
Belgium.....	1899	504,459,510	2½-3	75.63	85,494,672	83,883,860	48,307,011	12,940,806
Bolivia.....	1898	2,336,258	4 -5	1.16	3,431,000	3,712,000	59,223	22
Brazil.....	1898	480,985,000	4 -5	33.56	90,152,000	70,061,000	11,578,119	58,073,457
British Colonies‡	1899	265,541,000	3 -6	26.43	79,956,595	81,071,024	41,011,125	22,687,814
Canada.....	1900	265,494,000	2½-5	50.59	‖51,030,000	‖42,975,000	95,319,970	39,369,074
Chile.....	1898	113,240,000	4½-5	36.11	43,206,000	38,052,000	3,287,565	7,112,826
China.....	1899	287,123,500	4½-7	.72	‡73,500,000	‡73,500,000	15,259,167	26,896,926
Colombia.....	1898	15,809,000	3 -5	3.95	7,031,000	8,697,000	2,710,688	4,307,814
Costa Rica.....	1899	13,124,000	3 -5	43.75	3,513,000	3,180,000	1,462,355	2,980,030
Denmark.....	1899	55,795,724	3	24.15	19,247,008	20,619,361	18,487,991	920,455
Ecuador.....	1897	7,882,435	3½-5	6.21	3,564,000	3,620,000	1,216,008	1,524,378
Egypt.....	1899	500,402,729	3 -4½	53.61	56,424,345	54,437,259	1,095,673	8,278,022
France.....	1900	5,800,691,814	3 -3½	150.61	691,349,500	691,291,192	83,335,097	73,012,085
German Empire	1900	557,626,622	3 -3½	9.96	471,002,000	489,804,000	187,347,889	97,374,700
German States..	.....	2,015,958,000	.....	.....	.....	.....	.....	.....
Greece.....	1900	168,548,444	4 -5	69.25	13,650,533	13,626,200	290,709	1,122,855
Guatemala.....	1899	20,826,507	4 -5	13.23	2,687,000	2,643,000	785,462	2,402,978
Honduras.....	1899	89,376,920	4 -5	219.60	1,114,429	1,119,295	1,181,453	988,606
India (British)..	1899	1,031,603,705	2½-4½	4.67	328,955,934	316,105,507	4,892,323	45,355,976
Italy.....	1899	2,583,983,780	3½-5	81.11	317,349,332	313,276,071	33,255,620	27,924,176
Japan.....	1899	206,799,094	4 -5	4.73	121,433,725	119,934,893	29,087,475	32,748,902
Mexico.....	1900	168,771,428	3 -5	13.36	29,267,131	26,035,775	34,974,961	28,646,053
Netherlands....	1899	466,410,294	2½-3	90.74	58,323,000	60,922,000	89,386,676	15,852,624
Nicaragua.....	1898	4,901,819	4 -6	9.80	‡1,409,950	‡2,433,250	1,817,869	1,520,266
Norway.....	1899	53,211,132	3 -3½	25.08	21,457,420	20,912,308	(**)	(**)
Paraguay.....	1898	19,972,000	3 -4½	30.45	844,000	892,000	4,884	.....
Peru.....	1898	20,321,784	4 -6	4.41	5,914,000	6,072,000	1,662,475	2,122,543
Portugal.....	1899	670,221,374	3 -4½	143.82	56,363,000	59,207,000	5,886,542	3,743,216
Rumania.....	1899	280,136,991	4 -5	47.37	28,001,000	29,249,000	41,562	101,042
Russia.....	1899	3,167,320,000	3 -5	24.56	891,772,000	921,068,000	10,488,419	7,246,981
Servia.....	1899	81,972,108	4 -5	33.43	15,144,348	14,842,825	.....	.....
Spain.....	1899	1,727,994,600	4 -5	95.53	170,998,000	171,752,000	13,399,680	5,950,047
Sweden.....	1899	85,154,320	3 -3½	16.71	39,043,000	39,043,000	10,436,467	4,244,302
Switzerland....	1899	15,919,219	3½	5.10	19,392,000	18,924,000	250,477	17,393,268
Turkey.....	1899	726,511,195	3 -5	29.25	81,893,462	81,533,341	567,062	7,928,534
United Kingdom	1900	3,060,926,304	2½-2¾	74.83	583,201,360	650,258,113	533,819,545	159,582,401
United States††	1900	1,107,711,257	2 -4	14.52	669,595,430	590,068,371	.....	.....
Uruguay.....	1899	124,374,189	3½-5	148.06	16,608,000	16,608,000	1,816,780	1,848,077
Venezuela.....	1898	37,725,814	4 -5	14.51	6,452,000	8,790,000	2,452,757	5,500,019
Total.....	.....	\$31,201,759,274	.....	\$24.15	\$5,888,392,563	\$5,875,645,277	\$1,332,308,717	\$750,363,442

* Does not include debt charged nor military expenditures in Bosnia and Herzegovina. † Included with Austria-Hungary. ‡ Estimated. § Except Australasia, Canada, and British India. ‖ From and on account of consolidated fund. ** Included with Sweden. †† Figures for June 30, 1900.

PENMANSHIP.

Nearly every nation of antiquity has at some period of its history attributed the origin of letters to the beneficence of the divine beings that they worshiped. This appears not only from the statements of writers but from the nature and meaning of the words used for writing. In the Egyptian language the term "writing" signified: "Writing heavenly words." This meaning is not only beautiful but essentially true, for whatever may be the origin of letters, no gift of

invention has been so useful nor has contributed so much to the advancement and the civilization of men, as the art of writing.

The study of the writings of the different nations shows us that there were generally two motives that guided their course of progress. The most important was the desire to save work. The other was the love of beauty. The desire for beauty was especially marked in the Europeans and led to the Gothic script, but our own forms of writing have developed through the constant forming of the Roman letters with a pen in such a way as to not only save time but to give the letters lines of beauty.

Whatever your profession in life may be, there is nothing that you will find more important to your progress than the art of writing well. The world has many places for good penmen. Too many people look upon writing as something that anybody can accomplish and think that it does not matter how it is done. A certain amount of individuality in penmanship there will surely be, but this can remain even if the fixed rules for good penmanship are closely followed. Your own characteristic style will take care of itself, and, if you carefully follow the rules which are considered as essential in the art of writing well, you will not only learn to write a good clear hand, but will always preserve it.

It has been clearly demonstrated that the use of the pen, even for long periods of time, is not unhealthful or exhausting, providing it is used in the right way. This is a very important matter to bookkeepers, copyists, or others who are using a pen constantly, and who are liable to what is known as "writer's cramp," unless they carefully observe the rules for correctly holding the pen. Some people sit down to write as if they were inviting an attack of cramps. They sit or hold the pen so as to produce an undue strain on muscles which ought to act freely. There is no occupation more tedious and none more severe upon the energies of a person than the use of the pen by improper methods. Many men and women whose health has broken under the task of writing, have failed and suffered, not so much from the difficulty of their work as from the attempt to do it in the unnatural and the hardest way. It is no use to fight against nature and whoever attempts it must suffer in the end.

The knowledge pertaining to penmanship has been classified and the rules of the natural methods have been made complete. Anyone who follows them carefully will be rewarded by a power to write easily and rapidly.

The style of writing which has had the approval of a long period is known as the slanting or Spencerian style. The letters are formed at an oblique angle to the line. A mode which has recently come

into common use in many schools is called the vertical style, for the letters are formed perpendicularly to the line. Some advantages in the way of clearness are claimed for this, but the friends of the old method say that vertical letters do not admit of either the grace or the rapidity of the old method. But whichever style is used, the general rules for the natural way of using the pen apply. These are more important than the mere matter of the slant of the letters.

Attention must first be paid to the matter of a correct position. You cannot write well lying down, nor can you write well if you curl yourself up into an awkward and cramped position at the table or desk. There are recognized three different positions, any one of which is proper. The Front Position is most generally used and most recommended, especially to students who are learning to write. In this position you should sit square with the desk but not in contact with it. Keep the body erect and the feet level on the floor. Place the paper on the table directly in front of you and, if you are to write by the slanting method, it should be in a position oblique to the body but square with the right hand. If using the vertical method, the paper should be nearer square with the body. Let the left arm rest on the table with the hand on the paper to steady it.

In what is known as the Right Side Position you should sit with the right side to the desk but without touching it. Let the paper lie square with the edge of the desk or nearly so and place the right arm on the desk parallel to the edge. The left hand may be placed on the paper so that the left arm makes right angles to the right arm. If the paper is made fast the left hand may be left free. This is a good position to use, therefore, if you wish to hold a book in the left hand while writing. In this position as in the other and in fact in any position the body should be erect and the feet should rest squarely on the floor.

The Left Side Position is a very convenient one in counting houses where large books are used. The left side is turned to the desk and the left arm is placed parallel to the edge of the desk with the hand on the paper above the writing. The right arm should be nearly at a right angle with the desk. The most important matter to observe in all these positions is that the muscles of the arms and right hand should be free to move. Any position which binds the right arm to the desk requires the muscles of the hand to do all the work. This in time must result in weariness and pains not only in the hand but in the arm. Moreover, it cannot result in good penmanship.

Three different movements may be noticed in writing: First, the Finger Movement; second, the Forearm or Muscular Movement, and third, the Off Hand or Whole Arm Movement.

To secure the proper Finger Movement the arm should touch the table on the muscles only and about three inches from the elbow. You should hold the wrist clear from the table and square, so that a pencil laid on the wrist would be nearly in a horizontal position. Always hold the pen between the thumb and first and second fingers. Keep the second finger nearly straight with the tip about three-quarters of an inch from the point of the pen. The penholder should rest half-way between the tip of the finger and the first joint. The forefinger which should also be nearly straight, should rest over the holder. The thumb, slightly bent with its end against the holder opposite the first joint of the forefinger, keeps the holder in a proper position. Guard against letting the holder drop into the hollow between the forefinger and the thumb. The upward strokes of the pen are made by extending the first two fingers and thumb and the downward strokes by contracting them. The hand should glide over the paper on the nails of the third and fourth fingers which should be kept closed above the second joints. This position you will see if you will try it gives the hand perfect freedom and enables it to readily guide the pen in any desired direction with very little effort.

The same position of arm and hand is used in the Muscular or Forearm Movement as in the Finger Movement, but instead of forming the letters by the extension and contraction of the fingers, they are formed by letting the hand, the wrist, and the pen move together. The pen practically remains fixed in the fingers, but the arm, rolling on the muscle near the elbow, gives the necessary motion for the making of the letters. Undoubtedly you will find that this does not come so easily or so naturally at first as the Finger Movement, but it is regarded as the proper movement for business writing. You will notice it often if you are in banks or counting houses. It is a good plan to practise the movement when you are learning to write and in a short time with care you will acquire a good business hand.

When a business man is seeking good clerks or employees he always wishes to see a sample of their handwriting and he can tell very quickly something of the qualifications of an applicant by the way he writes. If he sees a good business hand, such as you may with practice acquire by the Forearm Movement, he will give the one who shows it the preference, other things being equal.

The Off Hand or Whole Arm Movement is only used in making large capital letters or in ornamental writing. It consists in raising the elbow from the desk and moving the whole arm with the pen. The hand slides along on the nails of the third and fourth fingers. This is such a movement as you would make if you were writing in large letters on a blackboard. It is frequently useful to a good pen-

man, but the essentials of a good hand are all contained in the first two movements mentioned.

Very often new styles, something like the varied fashions in dress, come into more or less common use. One of these consists in taking the penholder between the first and second fingers. This is apt to be formed by those using a stub pen. But a position like this is not adapted to constant writing nor does it make a good business hand. Such a method is apt to lead to a sprawling style of writing and it is generally hard to read when the writer attempts to write fast. Moreover, it cramps the hand. It is not so easy on the nerves. Anyone who is compelled to write his signature a great many times a day, one signature following another, will find himself quickly worn out with the effort, unless he adopts one of the proper positions described above.

If you wish to write nicely you should practise writing by these proper movements of the hand and fingers, hand and arm, and then adhere to them. When you have acquired enough skill to write well in this way, you would destroy all your good work if you tried to adopt another method which might come into style for the time being. In trying to learn the new style you would not simply undo all your good work on the old but what you had done would prevent your accomplishment of good penmanship by the new method. One would destroy the other. Business men see many samples of handwriting showing that the gift of writing clearly has been destroyed in this way. It will be evident in the irregularity of the letters. It is this which often makes such a style difficult to read. By making such a mistake you will find that you get into the way of never writing twice alike. The writing at the end of a short letter even, will not look like that at the beginning. This fault would prevent your keeping a neat set of books. You can only do this by adopting a proper style and sticking to it.

Having secured an understanding of the proper position to assume and the correct movements to make in your pen practice, you should then acquire a knowledge of the principles on which different letters are formed. While no two letters are alike, it is found that when correctly made all are made up of straight and curved lines. The straight lines should all be parallel and of the same slant. The curved ones are either convex or curving outward; concave or curving inward and sometimes a combination of the two called compound curves. Now in all the poor handwriting you observe, you will notice that the straight lines are not always of the same slant. This gives the writing a ragged and uneven appearance. Then you will notice that some lines are curved that should be straight, and you

will see that of the curved lines some curve too much and some not enough. No good penmanship has such variations as these. Every stroke of the pen will show perfectly one of these three principles of formation of letters. It is these which give a good handwriting that even appearance.

In vertical writing the straight lines are of course perpendicular and the curved lines conform to them, but in the older style of making slanting letters, good penmen are agreed that the angle or slant should be about 53 degrees from the base line. You know that a right angle is 90 degrees and thus an angle of 53 degrees would be a little more than half of a right angle. To write at a slant of 45 degrees or half of the right angle would give it too much of a slant either for speed or good looks.

Shading is not essential to good writing but when it is properly done adds to its beauty. It is always made when the pen is brought toward you by pressing slightly and gradually on the pen. Care should be taken not to press too suddenly or too hard. Too much shading is not only tiresome for the hand but destroys the beauty of the writing. There should never be but one shade in a capital letter. In the small letters many prefer to shade only the letters d, p, and t. At any rate it will be better for you when learning to write or in striving to improve your writing to follow this plan at first. After the principles of the formation of the letters are mastered you may practise shading with less danger of mistakes. You can always tell where a capital letter should be shaded, for as a rule it can conveniently occur in but one place. It is always when the pen is drawn directly toward you.

It will be of advantage to you in the first place to make a study of each letter before you attempt to write sentences. Many people fail to acquire a good handwriting because they never take the trouble to do this but begin at once to copy lines. In doing this they strive simply to imitate the general appearance of the copy, without being informed of the real principles on which the letters were formed. Get a perfect understanding of one letter before you go to another. Learn just how it is made and then practise making it till it comes easily. This is the same kind of practice which would be required of you were you to study drawing. You would not sit down to draw a picture at once. At first you would be told to practise in making straight lines and then in drawing curved lines with reference to the straight ones. In time you could draw a face or a tree but you could draw nothing well till you had first mastered the principles.

You will find that all small letters are formed by a combination of three different lines, a concave curve, a convex curve, and a straight

line, and by making these lines all at the same angle your letters will all be alike.

The line on which the writing rests is called the base line and that at the head of the shorter of the small letters is called the head line. While both lines are used for the first instruction in writing, only the base line is used on ordinary paper. It is supposed that the writer will become so proficient in making the small letters that he will need only the base line to guide him. Many prefer no line at all.

The first principle of making small letters is a convex curve commencing at the base line and running at the proper angle to the head line. When you write the small letter "a" for example, you begin at the base line and run a convex curve to the head line. You then come back to the base line with another convex curve. The next move is on the second principle of the concave curve by which the pen ascends again to the head line. You next return the pen to the base line with a perfectly straight line which is the third principle. You then finish the letter with a line which will connect it with the next letter and which may be either a convex or concave curve according to the letter.

In making this letter, therefore, there are five distinct movements but they are of only three kinds. No matter how many movements are required to form any small letter, you will always find that they are always of these three kinds. You can do no better than to practise for a little in making these different curves and the straight line. When you have once become skilful in this, the making of good letters will come easily. Study each letter in your copy and observe just how the three different lines are employed in each.

You will notice the same kinds of lines in the formation of capital letters. One very common stroke is the Capital Stem which you recognize as the first part of the letters A and M. This is modified in various letters, but all are formed of convex and concave curves. So also are the oval forms, such as are seen in the capital letter O. There is an inverted oval which is used in the first part of the letter W. By a little examination of your copy in accordance with these simple principles you will observe at once the proper way for making all the letters.

If you have already learned to write merely by copying certain lines of copy and without an understanding of the principles, you can greatly improve your hand by practice according to the principles. Take any letter and write it a great many times in succession, studying carefully the nature of each curve. You cannot give too much care to these little things at first. After a time they will become

second nature and you will see that it is as easy to write a perfect and a graceful hand as it was to write in an uneven, careless way.

Many people write fairly well when young but gradually get careless and allow their writing to become worse and worse till it is well-nigh impossible to read it. Those who are writing very much and very rapidly easily fall into this mistake. They might easily avoid it with a little care and they would save their friends a great deal of time in trying to make out letters they have received. But those who fall into this habit are generally those who learned to write without an understanding of the first principles. They just let their handwriting grow up as a tree does in the woods without any care. With a handwriting properly acquired in the first place, you will find that you may easily preserve it, no matter how much it may be your lot to write or how rapidly. Many people who have carefully followed these rules have been able to write beautifully graceful hands when they have become very old.

Flourishing is the art of making various figures of beautifying letters by means of a rapid whole arm movement of the pen. This species of the penman's art was practised in very early days of writing. It was regarded not only as a distinctive feature of penmanship in the production of designs representing birds, animals, and fishes, but it was used for the embellishment of writing important documents. It was of greater practical advantage in former times than it is to-day.

Before the discovery of printing when the books of the world were written and during the centuries immediately following the discovery of printing the art of flourishing was extensively used. It was considered as a valuable accomplishment and anyone who could do it nicely was sure of plenty of work. Many of the written books were illustrated with fanciful pen designs called "illuminations" and important state papers or letters patent or charters were beautifully written and embellished by clever penmen. Even now such services are often required in making certificates of membership in societies or in memorial resolutions which are intended to be framed for preservation.

But a good round clear hand is now generally regarded as of much more practical advantage. Every legislature, including the Congress of the United States, has engrossing clerks who write out the official copies of bills and resolutions on very durable paper. It is necessary that such documents should not only be perfectly legible but that they should be punctuated exactly right. Often grave disputes in law arise over the meaning of the words, and this meaning very often depends upon where a comma or a semicolon is placed.

If you should go to Washington you would find in the archives of the Department of State many volumes of bills and other documents which have been written by penmen who write perfect hands. These are the official copies. All printed laws are made from copies of these. The clerks who make these copies do nothing else and receive handsome salaries for their work. They have acquired the skill in writing perfectly through the practice of the principles which have been stated above.

In some of these documents you will observe evidences of skill in flourishing with the pen, and the exercise of the hand in making long, graceful lines tends to give ease and dexterity in the execution of practical writing. When seated for flourishing you should employ the Front Position, already explained, for it enables one to use the arm more freely. The pen must be held differently so as to give the shading to the upward or outward stroke instead of the downward or inward stroke as in the direct or ordinary position when writing.

Sit squarely at the desk, as close as is practicable without touching it. Let the left hand rest upon and hold the paper in the proper position which must always be in harmony with the position of the right hand and pen. The penholder is held between the thumb and first and fore fingers. The thumb presses upon the holder about two inches from the point of the pen. The first finger is bent at the second joint and forms nearly a right angle. It is held considerably back of the second finger which rests upon the under side of the holder and supports it. It should rest about midway between the thumb and the point of the pen. The third finger rests upon the fourth. The nail of the latter rests lightly upon the paper about one and one-half inches from the pen in a straight line from the point, and parallel with the arm.

For some kinds of work in which longer lines are made, the position may be changed so that the ball of the hand instead of the nail of the fourth finger rests upon the table or paper. This method is preferred in work requiring large sweeps of the pen. In the former method the fingers are liable to strike into the ink lines and mar the work. In the ornamentation of letters and in the making of small designs or in any off-hand pen work the former method is, however, generally employed.

The movement employed in all flourishing is that of the whole arm. This is obtained by raising the entire arm free from the table. The hand rests lightly upon the nail of the fourth finger and all the motion of the arm is from the shoulder. This gives the greatest freedom and scope to the movements of the pen. The same movement is used when making large capitals. When the arm rests upon

the ball of the hand the hand does more and the arm less, for the hand works upon the ball as a pivot. But in all cases the arm should be free to move.

You should not make any attempts to acquire the art of flourishing till you have mastered the principles of making good letters and perfected your writing so far as possible. When this has been done you will find the practice in flourishing, while a separate accomplishment, will give you a greater facility in ordinary writing. But flourishing should not be a part of your ordinary writing. You should strive to make that plain and even. Flourishing will provide you with amusement for many an hour and will enable you in time to draw some very beautiful designs with the pen. It will often supplement your writing, for sometimes you may wish to prepare some paper with ornamental letters or designs. As a rule the practice of forming with the pen good German text or other ornamental letters is of more practical advantage than the making of fancy birds or animals. Ornamental letters are often used in the titles to documents or architect's plans. If you do not care to perfect yourself in the use of the pen for ornamental work you may gain considerable amusement by copying designs by what is known as the Transfer Process. This has long been known to penmen and pen artists and is frequently used when exact copies are required. It is so simple and easy that a child can make an exact copy of any kind of ornamental pen work or even of outline pictures. It will not teach you how to make the originals and yet it will give you a good idea of how they are made and the kinds of lines that are used.

Any kind of paper that is so thin that lines can be readily seen through it will do, but it is better to secure regular transfer paper which is not only very thin but is so made as to be transparent. Take a sheet of this paper and place it on the picture to be copied. Then with a good lead pencil trace all the outlines and shadings of the entire picture. Do not neglect any line but make a complete and perfect picture on the transfer paper of the original.

Having done this turn your paper over and blacken the whole of the other side of it. You will readily see why this is done. If you attempted to transfer the pencil drawing to white paper the picture, while like the original, would be turned around so that it would face the other way. This is avoided by blackening the whole of the other side of the transfer paper.

When you have done this, place the transfer paper, blackened side down, on your white paper and with a hard, fine-pointed lead pencil trace over all the outlines and shadings of the entire picture. As you do this the lead on the blackened side will mark the impression

on the white paper. Thus you will print in pencilings a perfect copy of the original and it will face the same way.

When you have done this it is a very easy matter to finish the picture with a pen and ink. Put the ink on over the pencilings and shade according to the shading of the original. After the ink is on, erase the pencil marks with a rubber. Care should be taken in all these operations to keep the paper from moving so that none of the lines or shades may be misplaced.

If you read these instructions carefully you may sit down and make an exact copy of any outline picture you may wish and do it so nicely and perfectly that you will be surprised at yourself. It is of course not much of an accomplishment and it would be much better for you to learn to make nice originals with your pen. But not everyone has the gift for such work and if you have not, you will find the transfer process will furnish you good profitable amusement and some instruction.

If you are clever with your pen, never put it to anything except good uses. Your gift will delight others as well as yourself if you make pictures which will delight any eye. There have been some wonderful penmen in the world who have put their accomplishment to bad purposes and have suffered accordingly. Once the United States Government detected a counterfeit of a one hundred dollar bill which was so good that it passed through one of the banks. A few inches away it seemed perfect, but a closer examination revealed at once that it was done with a fine steel pen. The penman was arrested and spent a long period of his life in a prison and died poor and miserable. He had a gift which if properly used would have gained him riches and fame. As it was his gift and all the long hours he had spent in training himself only went to make him a miserable out-cast. Happiness can come only when your gifts and accomplishments are ever employed in a good purpose.

PERMIT.—Written authority to remove dutiable goods.

PERSONAL PROPERTY.—Chattels which consist of things temporary and movable, including all property not of a freehold nature.

POLICY.—The instrument by which a contract of insurance is made.

POLL-TAX.—A tax levied upon the person of the citizen himself, in distinction from that upon property.

POST OBIT.—A promise to pay loans after the death of some person.

PREFERRED CREDITOR.—One whom a bankrupt debtor elects to pay first.

PRINCIPAL.—The sum on which interest is paid.

PROTEST.—Notice to the suréties of a note that it was not paid at maturity or to the drawer of a draft that acceptance was refused.

PUNCTUATION is the art of dividing composition by points or stops for the purpose of showing more clearly the sense and the relation of the words, and of noting the different pauses and inflections required in reading. Though necessary to the clear expression of thought in writing, few master the proper use of punctuation, and so often give trouble to their correspondents, and are perhaps misinformed as to what they designed to say or relate. How necessary it is to punctuate properly may be seen from the following confused sentence:—

The party consisted of Mr. Smith a merchant his sister a governess Senator Jones a Southerner his aunt and a young lad.

Without punctuation it is impossible to gather how many were in the party, or what their relationship was. If commas are inserted, it will appear that the party comprised eight people, thus:—

The party consisted of Mr. Smith, a merchant, his sister, a governess, Senator Jones, a Southerner, his aunt, and a young lad.

By inserting semicolons in place of commas, the number of the party is reduced to five, as follows:—

The party consisted of Mr. Smith, a merchant; his sister, a governess; Senator Jones, a Southerner; his aunt, and a young lad.

Usage, as a rule, determines how compositions ought to be punctuated, so it is not safe to lay down arbitrarily any hard and fast rule. This, however, should not prevent one from paying attention to the matter, and fall into the habit of careless and slovenly writing.

PUNCTUATION POINTS AND ACCENTS

Period.....	.	Brace.....	{
Colon.....	:	Accute Accent.....	é
Semicolon.....	;	Grave Accent.....	è
Comma.....	,	Circumflex Accent.....	ê
Interrogation Point.....	?	Tilde, or Circumflex.....	ẽ
Exclamation Point.....	!	The Long, or Macron.....	ē
Dash.....	—	The Short, or Breve.....	ě
Parentheses.....	()	Diæresis.....	ë
Brackets.....	[]	Cedilla.....	ç
Hyphen.....	—	Asterisk.....	*
Quotation Marks.....	“ ”	Dagger, or Obelisk.....	†
Apostrophe.....	'	Double Dagger.....	‡
Ellipsis.....	{ * * }	Section.....	§
Caret.....	^	Parallel.....	||
Index.....	☞	Leader.....	[.....]
Paragraph.....	¶		

PLURAL OF FOREIGN NOUNS, RULES FOR THE.—In forming the plural of foreign nouns, the following rules apply:—

The termination *A* becomes *Æ*; sometimes *ata*, as *larva*, *larvæ*; *miasma*, *miasmata*.

Is becomes *Es*, sometimes *Ides*, as *axis*, *axes*; *apsis*, *apsides*.

Us becomes *I*, as *magus*, *magi*; but *genus* becomes *genera*.

Um and *On* become *A*, *datum*, *data*; *phenomenon*, *phenomena*.

Ex and *Ix* become *Iees*, as *vortex*, *vortices*; *helix*, *helices*.

O becomes *I*, as *virtuoso*, *virtuosi*. (See SPELLING.)

REAL ESTATE.—This term in law includes land, and whatever else attaches to or is a part of it: either added by nature, as trees, minerals, water, or by artificial construction, as houses, etc.

REAL ESTATE, INVESTMENTS IN

CHARACTER OF SUCH INVESTMENTS—CAUTION NEEDED IN DEALING WITH AGENTS—
TITLE GUARANTY COMPANIES—REAL ESTATE INVESTMENTS COMPARED—MANNER
OF PREPARING DEEDS—DEEDS IN WIFE'S NAME—BILLS OF SALE—OFFICIAL
RECORDS OF REALTY TRANSACTIONS—IMPROVED REAL ESTATE SHOULD BE IN-
SURED—LANDLORDS AND TENANTS—THE ART OF RENTING HOUSES—PRESENT
TENDENCY OF REAL ESTATE TOWARD STEADINESS.

IN TOWNS and cities, investments in real estate are often pressed upon the attention of persons who have money to spend. An improved lot, bringing in rent enough to pay taxes, insurance, repairs, and interest upon the purchase money, is a good investment when bought at a fair price; but there are usually too many experienced investors ready for such a purchase to leave many bargains for the inexperienced. The best opportunity for the latter is when times are hard, money in demand, and real estate depressed in value. Even then, the price paid should bear a proper relation to the present earning power of the property, with reasonable assurance that both the property and the neighborhood have a promising future. For a building is constantly becoming the worse for wear and out of date, so that the wisdom of any purchase must rest largely, in the end, upon the value of the ground. That is a reason for estimating the values of ground and building separately, according to the invariable custom of real estate experts. If the purchase be store property, the future business prospects of the street must be considered, and care be taken

not to buy a piece of ground too small for such a building as the future business necessities of the locality are likely to require. If it be a dwelling, the tendency of the people who live in rented dwellings to move to the newer and better suburban dwellings, made accessible by modern methods of rapid transit, ought to be kept in mind. The effect of the multiplication of apartment houses, commonly called flats, upon the value and renting capacity of single dwellings, is also to be considered. Sometimes there is an overbuilding of flats, in this year or that, but they suit a good many town dwellers, and a flat is so costly a building that it will stay, and be rented, however low the rent obtainable, until the flight of years shall make the bare ground more valuable than is the ground and the unprofitable building together. This reference to flats suggests the remark that in a city or a good-sized town, a well-built and wisely planned three-storied flat is likely to prove a very satisfactory and stable investment. It is generally better, however, to build such a flat than to buy one already built. A desirable small apartment house cannot often be bought at a bargain, and the latest-built flat can easily be made the best of its kind.

It is not a bad thing to buy a good-sized villa plot in the suburbs of a town or city, either for all cash or on the installment plan, so long as the buyer does not pay the fancy price so often demanded for ground that is still farming land, though beautifully laid off on paper into streets, lots, parks, fountains, lyceums, and factories. If street cars, water mains, gas or electric lights, and public schools, already make the suburb a comfortable residential place, so that the buyer can go and live on the plot in a modest frame dwelling, the investment, if properly made at the beginning, is likely to become the event of a lifetime. In ten, fifteen, or twenty years, the "villa" can be pulled down, and the plot be cut up into city lots and sold at a fabulous advance on the original value. Nobody having a comparatively moderate sum of money to invest need hold off through fear or expectancy of a sudden or general upheaval of the old ways of living.

A real estate purchase is usually made through a real estate agent. Unless especially employed by the buyer, at the expense of the buyer—which rarely happens—he is the agent of the seller, interested in getting the best price for the seller and, therefore, the largest compensation for himself. Whatever his moral obligations toward the buyer, his legal obligations allow a wide latitude for exercise of the imagination in his alleged statement of fact. So that, however useful he may be in bringing property to the knowledge and inspection of an investor, in bringing buyer and seller together on a price satis-

factory to both, and in arranging the details of sale and settlement, all that he says about the value, position, and prospects of the property, its promising future, the prices that have been offered for it in the past, the peculiar circumstances that enable the present customer to get it at an astonishing reduction from its real value, and the celerity with which he can make a quick resale of it at a big profit, should pass through the ears of the customer without affecting the mind. If, in the end, the purchaser feels compelled to rely upon some representation of the agent as an inducement to make the purchase, there should be inserted in the bill of sale or receipt, issued upon payment of the deposit, a declaration that the purchase is made upon the faith of that representation, and that the agent issuing the bill of sale warrants the representation to be true. Then, if the representation be untrue or erroneous, and the purchaser suffers loss thereby, and the agent is financially good for the amount of the loss and costs of the lawsuit, the purchaser will be safe. The necessity of caution and self-diligence in dealing with a real estate agent for a purchase, is enhanced by the frequency with which the actual negotiation with the purchaser is conducted by a permanent or casual feeder of the real estate office, with whom the agent divides the commission, without being responsible for any of the acts or representations not brought to his knowledge or confirmed by him.

Deeds of real estate are usually written on printed forms, and it is better to use such a form than to attempt to draw a deed from knowledge or memory of what should be put into it. Yet, even with a printed form, it is dangerous for other than an expert to draw a deed, since the parts to be written into the form are the more difficult and important. Some real estate agents, notaries public, and justices of the peace, are expert in drawing deeds and, therefore, may be trusted in ordinary cases; but where anything more than a simple conveyance from one person to another is to be made, it is better that a lawyer should prepare or revise the deed.

The deed to a house intended as the family home should preferably be taken in the name of the wife, so that the safety of the home may be assured if the husband should afterward become involved by bad investments or speculations, or by endorsing, or "going security," for others. This advice is good, even in those states that have liberal laws exempting the homestead from liability for debt. If, unhappily, the couple should afterward become divorced, the divorce court would decree a just disposition of real estate standing in the name of the wife, according to the circumstances of the case. In private litigations, which make up much the greater mass of legal business, the courts may be trusted to do strict justice be-

tween the parties, upon the evidence produced, those guilty of offending, receiving their proper due, with no burden added or benefit taken away merely because of their offense. One of the consolations of being forced into a lawsuit is the assurance of having it presided over by a judge at once experienced and impartial. It is worth the time and trouble of spending an hour or two at the trial of an important or noted civil case, to contrast the calm, and even cold, demeanor of the judge, with the obviously interested behavior of the principals and witnesses. He often has his private opinion of the case, of the parties, and of the witnesses; but he keeps it to himself, shows favor or disfavor to neither side, and though he may have to deal with the testimony of witnesses who flatly contradict each other, he accuses neither of perjury, but temperately states the reason why, upon the whole, one piece of evidence should be accepted and another rejected. It would be half-way to the millenium could the judicial habit and manner be universally adopted by the community; but the judge began as a lawyer, and the lawyer began by learning that there are two sides to every contention, in which neither side is likely to be wholly right or wrong, and with a reasonable chance that the other side is the right side

Though an inexperienced person should not presume to draw a deed of real estate, any intelligent person may draw such a bill of purchase or sale of real estate as will bind the bargain until the time comes for deeding the property. Such a bill should state who is buying and who is selling; should specify the lot or tract of land bought and sold, which may be described in any brief or familiar language that will enable it to be fully and accurately described afterward; the price to be paid; the time and manner of payment; how the deferred part of the payment is to be secured, which is usually by a mortgage upon the property itself; whether the whole and perpetual title to the property is to pass, or only a limited or partial title; which party is to pay the costs of title searching, deeding, and recording; whether the seller is to guarantee a good title; how long a time is allowed the purchaser to complete the purchase; how much has been paid by way of deposit, and how much, if not all, of the deposit is to be retained by the seller if the purchaser alters his mind and chooses not to take the property. If an existing mortgage is to be assumed by the purchaser, the amount of it and its assumption should be stated, and it should also be stated up to what time the seller is to pay accrued interest on an assumed mortgage, and accrued taxes. Any special or additional arrangements concerning the purchase or sale should be mentioned.

If a purchaser by bill of sale desires to record the bill, to protect

his interest until a deed can be recorded, the seller should acknowledge it as he would acknowledge a deed; otherwise the witnessed signature of the seller will be sufficient. A merely signed, or signed and witnessed, bill of sale may be recorded, if necessity or occasion should arise, by attaching to the bill such an affidavit of the purchaser as the recording officer may prescribe.

Real estate may be, and often is, rented by oral agreement; but a written agreement, or lease, is better for both landlord and tenant. Forms of leases are kept by dealers in legal blanks, and should always be used. The printed parts indicate or suggest how the blank parts should be filled. When filled, they should express the agreement fully and clearly, and additions to the statements provided for by the printed form may be made, if it is necessary to include in the document the whole agreement. A lease for more than two years should be recorded among the land records, to which end the landlord should acknowledge it in the same manner as he would acknowledge a deed. A lease should always be in duplicate, so that each party may have an original lease.

A lease is sometimes accompanied by a privilege to the purchaser to buy the property at an agreed price, at any time while the lease is in operation. Such a privilege should be included in the lease, or in a separately written agreement referring to the lease. If the privilege is a valuable one, the paper containing it should be recorded.

A great deal of business concerning real estate and personal property is performed by means of powers of attorney. Blanks for power of attorney are sold by law stationers, and should always be used, the maker of a power first canceling any of the printed matter that goes further than his intention, or that does not fit the case. Ordinarily, a power of attorney is revoked by the death of the maker or the subject of it, but powers of attorney are often used for matters, and under circumstances, wherein it would be inconvenient or unjust to have the death of either party terminate the power. Some of the blank forms contain provisions for making the power irrevocable by death, but if such a form is not obtainable, it can be done by canceling such of the printed words in an ordinary form as are unsuitable, and then by adding written words expressing just what is desired. A power of attorney to sell and convey land should be acknowledged and recorded.

One objection to real estate investments has been the apprehension that something unexpected might turn up to impair the title, thus causing delay, trouble, and expense, when a sale or mortgage is pending. This rarely happens with agricultural land, or town property that has been long held in one family. But it does happen often

with city real estate of the active kind, which has been repeatedly transferred or mortgaged. The danger is now removed by the existence of title guarantee companies, which, for a reasonable fee, will examine a title and prepare the deeds, and for a further reasonable fee, will guarantee the title to be good against all comers. Such a guarantee from a well-known title company almost universally does away with any doubt or question, and has given an augmented value to real estate as an investment. Experienced persons lending money on mortgages now often insist upon a guarantee, certificate of title, and no important purchase should be made without one, or a certificate from a title company that the title is already good. Such a certificate will satisfy any reasonable buyer, and once issued, will serve indefinitely thereafter, the only subsequent expense being for continuations to bring the title down to date.

Real estate investments have the general modern tendency to become specialized. Some people habitually invest in business property; others in resident property; others in vacant lots; some in suburban investments; and others in ground that can be rented for market garden plots until the town comes near enough to turn them into villa sites or suburban homes. Suburban investments are likely to pay a high profit when made as the result of experience and caution; yet, such is the general tendency of land to grow in value, that even an extravagant purchase may become a profitable one in twenty years; which, however, is a long time to wait. No other kind of real estate has so much of a future as that lying on the borders of a growing town or city. The late John Sherman, of Ohio, appreciated this fact many years ago in respect to the city of Washington, and though all his life one of the busiest of public men, he made a large fortune by bold, yet always sagacious, investments in outlying farms, which he bought by the acre, at farming land prices, and sold by the square foot, at city prices. Taxes on such lands are light, whereas vacant ground, already in the town limits, may eat itself up in taxes and interest while waiting for a rise in price. The particular class of real estate with which one deals is less important than the dealing with one class, so that the investor may become familiar with the ins and outs of that class of property and be in the best position always to buy or to sell. There is no such thing on earth as an absolutely safe investment, but among the nearest approaches to one are government bonds, which pay a discouragingly low rate of interest; and real estate, which habitually pays fairly well and often far beyond moderation.

Instead of paying all cash for one piece of real estate, it is often better to buy two or more pieces, letting as much as two-thirds of the purchase money remain on mortgage. But unless there is likely

to be a comparatively quick resale of some of the property, the pieces bought should be improved property, bringing in enough to fairly pay their way. In that case, the now low rate of interest on first mortgages, together with the constant, even when slow, tendency of real estate to grow in value, will work together to make a profit for the investor.

Real estate speculation is as safe and as unsafe as speculation in general. The fact that the land is solid and fixed, while other subjects of speculation may vanish altogether, is of more interest to the creditors of a speculator than to himself. For speculation is not investment, but a species of gaming, in which the speculator, relying on his own judgment, relies also, upon having luck on his side while the speculation lasts. If luck fails him, his good judgment cannot save him. On the other hand exceptionally good luck may save him, even if his judgment was bad. A good investment is either made out of surplus means, or within the means of the investor, closely calculated. Such a purchase can endure a run or two of bad fortune without collapsing. But speculation, pursued as business, is based upon an inflation of actual means, and is subject to the universal law that one must take large risks to make large gains. In short, speculation is one of the business arts, and those who master the art are the winners. No habitual speculator wins always; indeed, the anticipation of losses and the provision for them in the general scheme are parts of the art. Occasional speculation, however, can be ventured upon by amateurs, so long as they do not go so deeply in any case as to risk permanent injury; and for speculation of that mild sort real estate is a good subject.

A few words more may be said about mortgages—this time from the standpoint of the borrower. To pay four or five per cent. a year for money obtained or retained on mortgage, in order to employ that money in purposes that reasonably promise a gain or saving of from seven to ten per cent., is to make what may be termed a productive mortgage. Of this sort are many of the mortgages on store property, dwellings, and farms, and the borrowers, who are profiting as well as the lenders, need no commiseration. The fact that mortgages flourish most in prosperous times is a proof that they are among the means of bringing about that distribution of capital which is essential to a sound and active condition of industry. In bad times, a borrower dislikes to mortgage, through fear of losing his property, and a lender because he fears that he may not get his interest, which he does want, and may have to become the unwilling owner of real estate.

An owner of improved real estate, like the holder of a mortgage upon that kind of property, should, of course, keep the buildings

well insured. Fire insurance on brick dwellings is comparatively so cheap that unless there be a good many houses to insure, the cost does not call for much study of economy. At the same time, it is to be remembered that brick dwellings are rarely totally destroyed by fire, so that an insurance to three-quarters of the value may be ordinarily regarded as safe; and the saving of cost, if there be four or five, or more, houses to insure will be an appreciable item. The insurance premium on any kind of building used for business purposes is heavier than in the case of a dwelling, and so is the chance of damage. The most frequent and most destructive fires are in those buildings where the business carried on is so hazardous that the cost of the insurance is almost, and sometimes quite, prohibitory. Speaking generally, the rule of wisdom is to keep the property insured to at least half its value. Out of forty planing mills, separately located, not more than two in a year are likely to catch fire, so that the owner of a building so used has nineteen chances to one of escaping loss. For the forty buildings, therefore, half insurance is a good average measure of safety.

Fire insurance is effected by a written contract called a policy. This policy, with its many provisions, is really a most interesting historical document, for its language has been chosen, and put together, as the result of centuries of experience and centuries of litigation. It is also an interesting legal document, since in case of fire loss, and dispute, its provisions bind both the company and the loser and it is too late for the loser to make that addition to, or alternation in, the contract that could have been made beforehand, and probably would have been made if the printed parts of the policy had been carefully read. For the written parts of the policy are flexible, and so long as the rule of paying according to what one gets is complied with, a policy holder can have anything reasonable and consistent inserted in the policy.

In the renting of a building for business purposes, the owner must be careful that the tenants are not privileged by their leases, or other forms of consent, to do things that would annul the policy on the building. The policy always describes the character of the building and the uses to which the building is put; and if things are to be kept, or done, in it that go beyond the ordinary risks of such a building so used, the policy should contain statements covering the extra risks. This remark applies to a dwelling in which gasoline is to be used for fuel. So long, however, as the owner acts in good faith, and with reasonable care, the policy on the building is not affected by the bad faith or negligence of a tenant. The law demands reasonableness, but it requires nothing more.

In some places there are fire insurance companies operated on the mutual plan, so that the insured are also the insurers; where such a company is old, and in good repute, it offers a cheap yet safe kind of insurance.

Storm losses on modern buildings are greater than in former days on the lower, smaller, and plainer, yet structurally strong, buildings then in vogue. Cyclone insurance, as it is popularly called, is becoming familiar in the cyclone or tornado districts, but elsewhere, severe storms occur every few years, and insurance against damage by wind, lightning, hail, and torrential rains, is very cheap. Plate glass insurance for costly store windows is already so common as to require nothing more than this passing mention.

According to their own casual talk, landlords and tenants are the unhappiest and most unfortunate of mankind. Everybody knows what they say of one another, and how each thinks what a model landlord or tenant he would make, if the positions were reversed. Upon an average, each tells about half the truth concerning the other, and if they should ever get together in a kindly way, each could teach the other something worth knowing. Taking them in the mass, landlords as a class, and tenants as a class, the latter have rather a better position under modern law and present-day conditions. But a man who would live contentedly in a hovel that he owned himself could not be content in a rented mansion. Yet, in the nature of things, there must be landlords, and the owning of rented premises must, on the whole, be profitable; otherwise the overworked and inefficient government would have to face a crop of new blunders in trying to provide homes for the people. As a matter of fact, there are many landlords who find a satisfying profit in renting out dwellings, stores, factories, and farms. If, theoretically, it is always unprofitable to be a landlord—and practically it is often profitable—there must be an art of being a landlord. That there is such an art, let the following story, especially obtained for this work, attest.

“I own, in my own right, or as trustee for others, about seventy-five houses. The majority of them are dwellings, but there is quite an assortment of stores, stables, blacksmith, and carpenter shops, greenhouses, and a few small factories or shops of a miscellaneous kind. Some are rented by the year, but most by the month.

“Whenever I rent a place, I have a written lease. I use the form drawn up by the bar association of this country, but because of my long experience, I have added a provision that tenants shall pay for damage done by careless use of the plumbing fixtures. I have never demanded nor received, nor ever expect to receive, a dollar from a tenant for plumbing repairs, but as the condition is in the

middle of my own printed lease, in heavy black type, I have seventy-five people looking after my plumbing, and that is the next best thing to being a plumber myself.

"My calculation is that if a house is worth twenty dollars a month, I can get ten months' rent in a year, taking one year with another, and allowing for bad tenants and for months when the house is vacant. That is two hundred dollars a year; but this sum divided by twelve months, instead of ten months, is \$16.66 a month. So I put the rent at eighteen dollars a month, which, being a cheap rent, enables me to select and to keep good tenants. In that way, I find I get quite eleven months' rent in every year, which is only two dollars less than ten months' rent at twenty dollars a month. But my saving of loss and damage, through having good tenants who seldom move out, is quite worth twenty dollars a year; so I get more than if I held the rent at twenty dollars.

"Whenever one of my houses is vacant, I go over it carefully and jot down what I should want done to it if I were going to occupy it myself. These things I have done. Very often, a tenant is willing to take the place without these repairs, or with only a part of them. That does not make any difference, the repairs are made all the same. I want him to have so good a house for his money that he cannot afford to leave it, or to be ejected for non-payment of rent. I never have to spend money in advertising a house for rent, because I have a long list of people who want to rent from me, and I am able to choose my tenants. What I save in advertising, I put on the property.

"Although I have the best lot of tenants in the city, they will come to me with excited complaints of things out of order. I go at once and examine the place. If anything is out of order, I have it made right at once. If they are complaining without cause, I invite them to vacate the house, and that brings them to order. The kind of tenants I have, spend considerable money, in the aggregate, to have things to suit themselves, and what they spend to please themselves is usually a benefit to the property.

"Many of my houses are old-timers, and originally lacked what are now regarded as modern improvements. But they now have all the modern improvements that can be put into them, short of tearing them down to the ground. There are electric push buttons instead of door bells, electric gas lighters instead of matches, gas heaters in the bath-rooms, wood mantles with mirrors, and nearly all the latest notions. Some years ago I took the fancy of putting a small sized gas stove in each of the kitchens of my dwelling houses. Very few wanted them, and some of the tenants intimated that I owned stock

in the gas company. Now, seven-eighths of the breakfasts are cooked on the gas stoves, and the quick-breakfast gas stove will rent a house when all other attractions fail.

"I hear a good deal of outside talk about rents being so low as to leave no profits for the landlords. I make a clear six per cent. on the houses I rent, and if I sold them all for cash, I should not know where else to put the money to bring in six per cent. Besides that, I have the profit of the increasing value of the ground, which costs me nothing except an occasional trifling addition to the taxes. Adding that to the income from rentals, I am getting at least eight per cent. on the investments."

This story of some seventy-five rented houses might as easily be the story of a single rented house, and shows that the secret of successful investment in improved real estate lies in a just balancing of the separate, but not hostile, interests of landlord and tenant. The experience is common enough among the great landholders and the tenant farmers of both England and Wales, but that would be too far-fetched an example for this country, where such interlocked classes are almost unknown.

It is easier to make a good investment by way of a secured loan than to buy the property outright. The amount of a loan rarely does and never should exceed seven-tenths of the carefully ascertained value of the property, whereas, even a bargain purchase seldom falls much below the true general market value of the property. In the case of a loan, there is a broad margin to absorb such unforeseen contingencies as a defective, or incomplete, title; costs of litigation, or other extraordinary expenses; a decline in the value of a particular property, or of property in that neighborhood, or of that kind of property in general; or any other casualty lessening or tending to lessen the value of the security. In the case of a purchase investment, if anything of an unfavorable nature develops, there is always the fear of an actual loss, and very often the empty joy in the end of getting out of the investment without profit. So that anybody satisfied with moderate gains, if well assured of them, may wisely look to mortgages as a good kind of investment, safe, and comparatively easy to make.

City real estate is harder to value for a purchase than for a mortgage. Among real estate men, a difference of ten to fifteen per cent. in the valuations of expert appraisers excites no surprise. Real estate logicians say that the true value of a piece of realty is what it will bring when put to public auction, after being fairly advertised. Private sales are but loose evidence of value. A seller may be compelled to forego what he regards as a fair price, in favor of a quick

sale at almost any price. The price that a buyer considers low, may be twenty per cent. higher than the best offer that can afterward be obtained for it. A real estate agent, charged with a private sale, may impress his valuation upon the purchaser, while the latter or his agent may never be able to raise anybody else to an equal figure. At present, the tendency of real estate values is toward steadiness, except in what are called boom towns,—while the boom is working. With steadiness, instead of rapid increase, as the tendency, expert valuers now give the first place to a calculation of rent earning capacity, instead of, as formerly, to a calculation of the yearly rise, and of the time intervening before the next period of general depression. Upon ground already improved, rental capacity is figured upon the improvements as they stand. If, without extensive rebuilding, the improvements are obviously capable of being themselves improved, and the character of the property and the locality justify it, the cost of the further improvement is calculated, and then the rental value in the new state. If the ground be vacant, the cost of suitably improving it, according to its own character and its surroundings, is approximately estimated, and then the rental value; and from these figures is calculated the value of the vacant ground, reduced to so much by the front foot or square foot. Farming lands are more easily valued, as their ups and downs are much slower. In such a case, the valuer inquires into the local average rate of rise or fall during the last ten to fifteen years, takes into account the agricultural prospects of the neighborhood for about the same time ahead, and then makes allowances, upward or downward, for the particular features and circumstances of the farm under valuation, including fences and buildings.

To buy a home, or the site of a home, in town or country, is not, strictly speaking, an investment, and to pay ten or fifteen per cent. more than a mere investor would pay, for a place that suits, is not to be regarded as an ultimate misfortune. A real estate agent who knows that a prospective customer is looking for a home, talks much more about the attractions of the place he is showing than of their intrinsic values, knowing that when the right place is found, any price within reasonable bounds will be cheap to the homeseeker. Human nature works the same in this case as when a woman shopper buys a dress pattern or a bonnet that she particularly likes. It is invariably a bargain, and its being a bargain is half the pleasure.

RECEIPT.—A written acknowledgment of payment.

RECEIVER.—An officer appointed by a court to hold in trust property in litigation, or to wind up the affairs of a bankrupt concern.

REFUNDING.—The substitution of low interest-bearing bonds for those paying a higher rate.

REMITTANCE.—Transfer of funds from one party to another.

RENEWAL.—Giving a new note for an old one.

RETURNS.—Profit on an investment.

REVERSION.—Right to possess property after the happening of some event, as the death of a person.

SALVAGE.—Compensation given those who rescue ship or cargo from loss.

SCRIP.—Certificate of stock given before registration.

SECURITIES.—Documents securing a right to property.

SECURITIES, DEALING IN

FUNCTIONS OF THE STOCK MARKET—HOW CAPITAL IS PUT TO THE MOST PRODUCTIVE USE—WARNING AGAINST “BUCKET-SHOPS” AND FOOLISH SPECULATION—SOUND INVESTMENTS IN SECURITIES—HOW ROTHSCHILDS DECEIVED THE LONDON MARKET—DANGER OF PLAUSIBLE SCHEMES PRESENTED TO WOMEN—SMALL INVESTMENT RETURNS THE SAFEST—GOVERNMENT BOND ISSUES—DIFFERENCE BETWEEN STOCKS AND BONDS—THE PRINCIPLE OF LIMITED LIABILITY—MARKET PRICE AND PAR VALUE.

SOME knowledge of the character and operations of the stock market is desirable for all engaged in practical business, and especially for women who have independent resources, or whose affairs are in the hands of trustees or attorneys. Speculation on margins in the stock market is unwise, and is almost certain to result in loss rather than profit, except to those whose business brings them legitimately into the market. The stock market and the produce exchanges have definite uses, however, in the structure of modern industry. The criticisms against them, so often heard, are due to ignorance of their beneficial functions, and to the abuse of these functions which has been practised. The stock market and the produce exchanges, in their legitimate sphere, are only the final expression of that thorough organization which extends through modern industry.

The stock market is the place where the value of securities is determined. This value finds expression in changes of quotations. While these quotations are sometimes affected by false rumors and influenced by manipulation, they usually find their true level in the

long run, according to the real value of the security. If, for instance, the Pennsylvania Railway is well managed, and is earning large dividends, its stock and bonds will be quoted high. Enemies of the road may circulate false rumors which may carry the quotations off a few points, or a group of speculators may undertake to depress the market by selling a block of the stock at a low price, in the hope of buying back a larger amount while quotations are feeling the effect of their operations. But if the stock has real value, these devices will accomplish little against it. The speculators who make sales at low prices may be forced to make actual deliveries to those to whom they have sold, and to pay high prices in order to get the stock. The market will then go up again and the real solidity of the investment will be shown. In the long run, therefore, the stock market is the sensitive and accurate register of the value of any enterprise or investment.

It is the operations of the stock market that determine the direction in which capital shall be invested with the greatest benefit to the community. If an enterprise is not paying well, people will stop buying its securities. They will not buy new securities put on the market for similar enterprises. This is where the stock market renders its highest service to the community. If there were no stock market, with its sensitive register of the real value of investments, shrewd and unscrupulous speculators might continue to create worthless enterprises, and to dispose of their securities at their own prices, thereby swallowing up the savings of the poor as well as those of the rich. It would be not only the individual who would suffer in such a case, but the entire community, because the stock market would cease to drive capital toward profitable enterprises. Under the system of public quotations on the stock market, if cotton mills are paying well, their stock sells high. It becomes possible to sell stock in new cotton mills. Capital can therefore be found for new mills as long as they continue to be needed. When they become too plentiful, the rate of profit in such mills falls to the rate of profit in other enterprises. Then the stocks are no more attractive than are other stocks, and they cease to draw the savings of the community into such investments.

The result of these operations is that the stock market affords a constant medium for drawing the savings of the community into those enterprises which are most useful. The market operates with an intelligence that, although automatic, is more accurate and delicate in employing saved capital, where it accomplishes the most of all, than is any single human intelligence. The proof that it does the most is the fact that it earns the largest returns. Men pay the highest price for the thing they need the most, and they pay the highest price for money

when it yields the largest net income. The stock market, therefore, is the center in which are determined the equations of value. Without it, organized industry would be seriously crippled, if not paralyzed. The same may be said of the produce exchanges. Sales of products for future delivery on these exchanges are only the expression of the judgment of experts as to future conditions of supply and demand. It has been contended by critics of the exchanges that the offer of a man to sell what he has not at his command has a similar effect upon the price as an actual increase in the quantity of the goods. A little examination, however, will show that this could not be the permanent effect. If he sold below the real value of the goods, as determined by supply and demand, and by intelligent estimates of future supply and demand, he would be forced to deliver the goods which he had sold, and would be subjected to severe loss in finding them at the high prices which they really commanded. The grocer who takes an order for a barrel of flour when it is not in his store, cannot prudently sell below the real value of flour. If he does so, he will attract a great many orders, but he will have to find the flour and to pay its real cost of production. The anticipation of future conditions, and of sales for delivery under those conditions, tends to steady prices and to prevent violent ups and downs.

These are the fundamental principles that justify the operations of the stock and produce exchanges. They are subject to abuses, among the greatest of which is the appearance of gamblers, who do not judge intelligently of the conditions of the market, have not the means of judging, and do not seek to obtain them. Business on the stock and produce exchanges, however, even when conducted imprudently, differs radically from dealing with the "bucket-shops," which infest American cities and towns. These institutions are usually run by persons of limited responsibility, leading a nomadic life, and are only gambling rooms. A broker is an agent, whose interests are not hostile to those of his client. He buys and sells securities, with the intention of delivering them if called upon to do so. It does not change the nature of the transaction that a buying order may offset a selling order, and reduce the amount of stock actually delivered. A bucket-shop, on the other hand, does not deal in securities. It deals only in wagers on the probable fluctuations in their prices. These wagers cannot affect prices as legitimate offers to buy and to sell affect them, because they do not involve a real offer to buy. The bucket-shop keeper, moreover, profits by the losses of his patrons. If they bet that a stock will go up and it goes down, he pockets the margin. As the public usually takes an optimistic view, and buys in expectation of a rise of prices, the bucket-shop keeper profits by their fall. A

long-continued upward movement usually drives the bucket-shops to suspend, and those who patronize them lose the benefit of their occasional correct guesses. Such transactions do not possess even the character of unwise speculation, but involve the hopeless folly of other gaming, "betting against the bank." No man or woman should have any dealings with bucket-shops, no matter what alluring stories of success may be told by their acquaintance.

Stock exchange securities are legitimate investments, and the person with money saved may often profitably engage in their purchase and sale. The best course to pursue, however, is to buy them for full value, and to retain them until there is special reason for making a sale. If bought for full value, they can be held by the owner in spite of temporary fluctuations, and, finally, can be sold at a profit, if the price rises much above the price that he paid. In making such a sale, however, with the expectation of profit, it would be necessary to consider whether a better investment could be made with the money obtained. If business was active and all stocks had risen, the apparent profit of selling what he had might be offset for the investor by the high prices he would have to pay for a new investment equally good. In any case, the owner of a security need not be disturbed by temporary fluctuations, caused by political rumors or by changes in general business conditions, so long as he is assured of the soundness of the security, and of the regularity of its dividends. The chief influence which should lead him to dispose of his security would be some positive information regarding the mismanagement of the enterprise, or the decline in its earning power.

If a prudent investor should seek to make money by other means than through the actual dividends paid upon securities, he should proceed with great conservatism, and should be prepared to retain stocks that did not move upward in price as expected. Some of the greatest fortunes have been made by speculators who have bought in periods of panic when everyone else was selling. They picked out the securities which they believed to be sound, and held them until the panic ended and prices rebounded. They were then able to sell at a handsome profit, independently of the dividends earned by the securities. Henry Clews, speaking of the veterans of the market, in his "Twenty-Eight Years in Wall Street," says:—

"These old veterans of the street usually spend long intervals of repose at their comfortable homes, and in times of panic, which recur sometimes oftener than once a year, these old fellows will be seen in Wall Street, hobbling down on their canes to their brokers' offices. They always buy good stocks to the extent of their bank balances, which have been permitted to accumulate for just such an emergency."

To this method of dealing is attributed much of the wealth of the

great European houses, like that of the Rothschilds. One of them, when asked for the secret of his success, offered the simple formula, "I buys 'sheap' and sells dear." An interesting story is told of Nathan M. Rothschild, who was the London representative of the house at the time of Napoleon's last campaign. Rothschild was determined to get the earliest news of the result of the fighting in Belgium. He was with Wellington at Waterloo, and the moment he was confident that the issue was decided against Napoleon, he spurred his horse to Brussels, took post carriages to the seashore, chartered a small fishing boat, in the face of a terrific storm, by a bonus of \$400, and the next morning stood on the London exchange with gloomy countenance, hinting at a terrible defeat for the English and allied forces. Stocks tumbled violently. Several independent brokers whom Rothschild had secretly retained, bought quietly, but steadily, at the reduced prices. Next day came the news of the great victory of Wellington and the retreat of Napoleon. Stocks bounded upward, and Rothschild sold at enormous profits.

This incident, not very creditable to the honesty of the principal actor, illustrates the methods which can be resorted to by the great speculators in order to mislead "the small fry" and to manipulate the market. The telegraph, the telephone, and the ocean cable, have greatly diminished the opportunities for frauds of this character, but they are still possible within narrow limits. The foolish young man or woman who bets on margins, ignorant alike of the real value of the securities and of the secret scheming of the great speculators, is likely to find himself or herself as hopelessly plucked as is the most innocent "lamb" from the backwoods who ventures into the maelstrom of the stock market. The small or ignorant operator usually makes the mistake, also, of embarking all his resources on narrow margins. An unexpected change in market conditions, causing prices to fall violently, exhausts his margins, and compels the sale of his holdings at a loss. Many professional operators in securities take advantage of these conditions to raid the market, knowing that when they have reduced these unsupported margins, there will be a rush of selling orders that will tend to break down prices. If small operators kept strong cash reserves for strengthening their margins, the power of the "bears" and the wreckers to raid the market would be reduced, and fewer serious losses would result. It is the judgment of many veteran brokers, upon the whole, that no man who speculates on margins ever comes out ahead in the long run. A big haul at one time only spurs him to greater recklessness in other ventures, to say nothing of the temptation to expand his expenses and manner of living, that comes naturally when money can be obtained without being squarely earned.

The legitimate broker or speculator who gives his whole time to the study of market conditions, the needs for commodities in different countries, the influences tending to create abundant or scarce money, and the probability of panic or prosperity, earns what he gets as the reward of his research and judgment, but even he, with the utmost exertion of his faculties, acts in the presence of manifold uncertainties, which may turn an expected margin of profit into a heavy loss.

The safest rule to be followed by women with property is to seek sound and safe investments, and to draw a regular income from them, and not to meddle with the stock market in any other way. There is no occasion for changing investments, unless there is reason to believe that they are losing their safety and earning power. One of the most dangerous temptations set before women, as well as before many men, is the promise of large dividends through investment in some new enterprise. A persuasive friend, whose reputation, so far as the woman knows, may be as good as that of any person among her acquaintance, will often urge such investment, and paint glowing pictures of the large and certain returns to be derived from them. For several reasons, serious warnings may be given against listening to such propositions.

The first reason is that there is a great difference in the character and integrity of business and professional men. These differences are well understood by men who come often in contact with them, but they may not be known to their women friends. The man who is apparently plausible, ingenious, and socially popular, may be well known by his fellow business men and by brokers, and financiers, to be untrustworthy, shady, and more or less unscrupulous in his dealings. If he is known to possess these traits with men, where he has to be on his guard against making statements which are subject to the test of their long business training, he will be likely to give much freer play to such traits with women, who are not familiar with business matters, because they cannot apply the test of minute knowledge of business propositions to his rose-tinted bubbles. Such men are extremely dangerous to women, and the more so, the greater their personal and social charms. They carefully avoid acts that are contrary to law, or that would brand them publicly as criminals, but they sail as close to the edge of fraudulent misrepresentation as can be done without sacrificing respectability. In some cases, their fault is not intentional dishonesty, but a real exuberance of enthusiasm for dubious enterprises by which they deceive themselves as completely as they deceive other people.

It may be safely declared, that if the investments which this class

of men offer to gullible men and women were as meritorious as they describe, they would have no occasion to urge them. They would find capitalists with hundreds of thousands of dollars, eager to invest in any safe enterprise that promised more than the current rates of four or five per cent. These capitalists are the very people who ought to embark on such enterprises, where they are somewhat speculative and yet give actual promise of merit. Capitalists with large means often take shares in new enterprises because they embody the possibilities of great things in spite of serious risk. They can afford to lose. They act with their eyes open, and take the chances of loss. The man and woman of moderate means, who does not care to lose, cannot afford to go into such enterprises. The chances of loss are great enough in those enterprises upon which capitalists are willing to embark, they are infinitely greater in those which do not even tempt capitalists, and which are imposed upon men and women who have not the business and professional training to see their weak points, or to resist the special pleading of their promoters.

SIGHT.—The time when a bill is presented to a drawee.

SIGHT DRAFT.—One payable at sight, *i. e.*, when presented.

SILENT PARTNER.—One who furnishes capital but takes no active part in a business.

SINKING FUND.—A fund set apart from revenue to pay a public or corporation debt.

SPECIALTY.—A written, sealed, and delivered contract.

SPECIE.—Any kind of coined money.

SPELLING

Much has been said and written of the somewhat arbitrary and irregular manner in which the words of the English language are spelled, and although many steps have been taken to bring about a reform, nothing really radical in that direction has been done. It is not an easy matter to overthrow a system of spelling which has become firmly established by the usage of hundreds of years, especially when this is sought to be accomplished by thrusting upon the country at large a set of rules with the expectation that everyone will learn and faithfully follow them.

Unfortunately, the contentions of those who cry out at what they term the "absurdity" of our spelling are, to a certain extent, true. It is contended by some philologists that originally our spelling was purely phonetic and that the present awkward forms are the result of

typographical errors, ignorance, and whim, but this theory is ridiculed by many others. The fact is, we are struggling toward a consistent and phonetic system by degrees, which, although almost imperceptible, are thoroughly in accord with the philological maxim, "write as you speak." This struggle is but a natural evolution whose course cannot be quickened artificially, as is believed by those individuals who call themselves "reformers." The natural antipathy of the race to inconsistency and complexity will continue to assert itself, and by a process of mutual tacit consent, these objectionable features will slowly, but certainly, wear away.

It is conceded, however, that much positive good can be done by the votaries of the arts and sciences, so far as the nomenclatures of their professions are concerned, for the reason that the words which they contain are used by the laity to a very limited extent, and it is possible that among such a small percentage of the population of the country as each profession comprises a reform can be made. In this connection the action of the chemical section of the American Association for the Advancement of Science may be mentioned. This body passed a resolution advising that the report of its committee on spelling and pronunciation of chemical terms be followed. This section has received the approbation of many eminent chemists in the United States, among whom may be mentioned Harvey W. Wiley, M.D., Ph.D., chemist of the U. S. Department of Agriculture; Albert B. Prescott, M.D., Ph.D., late president of the American Association for the Advancement of Science, and Edward S. Wood, Professor of Chemistry, Harvard University.

The number of conventions that have been held for the purpose of endeavoring to bring about a general reform in spelling is surprising, and this coupled with the fact that very little has been accomplished would seem to indicate the almost utter uselessness of such a method. They have, however, been attended by eminent and learned men, prominent among these being Benjamin Franklin and Noah Webster, both of whom made vigorous efforts for reform. In England, Isaac Pitman, the inventor of phonography, spent a number of years laboring for it. In 1874, at the annual meeting of the American Philological Association, in Hartford, the president called attention to the "monstrous spelling of the English language." In 1875, a committee was appointed, consisting of the first president of the association (Professor William D. Whitney) and other representatives of our great universities of linguistic science, to whom the whole subject was referred. The next year, 1876, they reported in favor of a reform and laid down the principles which should guide it. This committee has been continued ever since from year to year.

In 1876 an international convention for the advancement of English orthography was held in Philadelphia. It was well attended from all sections of this country and England. It was presided over by Professor Samuel S. Haldeman, of the University of Pennsylvania, and at that time president of the Philological Association. On August 17, the convention resolved itself into the Spelling Reform Association. The deliberations of the convention led to an agreement to refer all alphabetic questions to the Philological Association, and their ideas and the proposed methods of reform laid before the committee of that association. In July, 1877, the committee presented to the Philological Association a report that contained the recommendation of a phonetic alphabet, and in the same year this alphabet was adopted by the Spelling Reform Association. It is called the "Standard Phonetic Alphabet" and by it words can be formed with simplicity and correctness. In addition to this alphabet, the Philological Association in 1886, adopted a set of rules which if put into general use would greatly change the spelling of a large majority of our words. But where are the results? In spite of the vast amount of work, no newspaper or magazine has had the courage to change, even in slight particulars, the spelling of the words intended for the public eye.

It seems, therefore, that while it is a comparatively easy matter to suggest reform and where it shall be applied, it is an exceedingly difficult, if not impossible, project to bring it about, and while we may hope that a simple method of spelling will fall to the lot of succeeding generations, it is our manifest duty to fall to work and master the spelling of the present day in spite of its difficulties.

Incorrect spelling is so common a failing that even men deeply learned in other sciences are deficient in it. The Civil Service examinations in this country show that about eighty-five per cent. of those examined for clerical positions fall short in this branch. The other fifteen per cent., however, show aptitude for it, which would indicate that there are but two degrees of spellers, "good" and "bad," and from this it may be fairly inferred that spelling is as much of a natural gift as painting or singing. Certainly we do not spell entirely by rule. What sense then is it that is employed? Obviously that of sight, together with the faculty of *association*. If a person endowed with a keen sight and a good memory sees a rosebush growing beside an oak tree, he will remember, should he desire to locate the bush at some future time, that it is adjacent to a tree of that character, and thus he will be enabled readily to find it. Similarly he will be enabled to remember that in certain words an *e* follows a *g* and in certain others it is followed by some other letter.

There is no excuse for misspelling the short words that appear

before our eyes hundreds of times a day, unless we be bereft of our faculties, yet how frequently are we surprised at the ignorance of our learned friends from whom we receive communications; as to the longer words, why should we misspell them while there are good dictionaries in abundance and every means of access to them? In spite of the vagaries and inconsistencies in our spelling, hundreds of errors may be safely attributed to carelessness and negligence. With a full realization of the danger of error, it is our duty to employ all possible means of improving ourselves in this, the most important branch of our education.

The following set of rules for spelling English words is strongly commended to the student who desires to pursue the subject of orthography in an orderly manner.

This classification and arrangement is made with a view to simplicity, and if the student will master one rule at a time, and that one thoroughly, in a short time he will possess a systematic knowledge of spelling that will prove of inestimable value.

MONOSYLLABLES

1. Monosyllables ending with *f*, *l*, or *s*, preceded by a single vowel, double the final letter; as *staff*, *will*, *pass*. The only important exceptions are *clcf*, *if*, *of*; *bul*, *nul*, *sal*, *sol*; *as*, *gas*, *has*, *was*, *yes*, *gris*, *his*, *is*, *this*, *pus*, *thus*, *us*.

2. Monosyllables ending in any other consonant than *f*, *l*, or *s* do not double the final letter. The only common exceptions are *abb*, *cbb*, *add*, *odd*, *bigg*, *cgg*, *mumm* (to mask), *inn*, *bunn*, *crr*, *burr*, *purr*, *mitt*, *fiss*, *fuss*, *buzz*.

3. A consonant at the end of a word immediately after a diphthong or double vowel is not doubled; except in the word *guess*.

DOUBLING FINAL CONSONANTS

1. Monosyllables and words accented on the last syllable ending with a single consonant (except *h* or *x*) preceded by a single vowel, or by *qu* and a vowel, double the final consonant before an additional termination beginning with a vowel, whether a syllable is added or not; as *rob*, *robbed*, *robber*, *robbing*; *regret*, *regretting*, *regretted*; *fop*, *foppish*, *foppcry*; *committec*; *thin*, *thinner*, *thinnest*, etc. Except that when the place of the accent is changed, the final consonant is not doubled; as *refer*, *reference*, *referable*; *prefer*, *preferable*.

2. A final consonant when it is preceded by a diphthong or by two vowels, or when the accent is not on the last syllable, is not doubled on assuming an additional termination; as *oil, oiling, oily; brief, briefer, briefest; real, realize, realist; benefit, benefiting, benefited; equal, equalize, equality.*

3. An important exception to this rule exists, by general usage, in regard to words ending in *cl*, in which *l* is usually doubled on taking an additional termination beginning with a vowel, excepting only in the word *novelist* and the derivatives of *parallel*, as *paralleled, paralleling*, etc. The following list comprises all the verbs which double the final *l* on taking an additional syllable:—

apparel	drivel	imperil	parcel	shovel
bevel	duel	jewel	pencil	shrivel
bowel	embowel	kennel	peril	snivel
cancel	enamel	label	pistol	tassel
carol	empanel	level	pommel	trammel
cavil	equal	libel	quarrel	travel
channel	gambol	marshal	ravel	tunnel
chisel	gravel	marvel	revel	unravel
counsel	grovel	model	rival	vial
cudgel	handsel	panel	rowel	victual
dishevel				

Other common exceptions to the rule are *humbug, periwig, zigzag, kidnap, worship, compromit, carburct*, and similar chemical terms ending in *uret*, which double the last letter before an addition, and also the word *woollen*, from *wool*.

5. The reason for doubling in all these cases is to prevent mispronunciation. Webster, however, allows none of these exceptions to the rule except in the derivatives of *humbug, periwig, zigzag*, and *compromit*.

WORDS ENDING WITH A DOUBLE LETTER

1. Words ending with any double letter preserve it double before any added termination not beginning with the same letter, and in all derivatives formed by means of prefixes; as *woocr, seeing, agreeable, stillness, blissful, recall, depress, foresee.*

2. Except *instalment, enthralment, thraldom, enrolment, dulness, fulness, skilful, skilfully, wilful, wilfully*, and words derived from *pontiff, pontific*. Also *withal, therewithal, wherewithal, until*, as well as *distil, fulfil*, and *instil*, with their derivatives. Webster, however, doubles the *l* in all these words, except *withal, therewithal, wherewithal*, and *until*.

FINAL "C" OR "CK"

1. Monosyllables and verbs of more than one syllable ending with the sound of *k* take *ck* at the end, as *black*, *stick*, *knock*, etc. The only exceptions are the monosyllables *lac*, *sac*, *talc*, *zinc*, *plac*, *roc*, *soc*, *marc*, *arc*, and *fisc*; and the verbs *frolic*, *mimic*, *physic*, *traffic*, *havoc*, and *bivouac*, with the present tense. But when these verbs assume the termination *cr*, *cd*, or *ing*, the *k* is inserted to show the hard sound, as *frolic*, *frolicking*; *traffic*, *trafficked*.

2. Words of more than one syllable ending in *ic* or *iac* are written without the *k*; as *music*, *critic*, *maniac* (*derrick* is an exception). Words of more than one syllable, in which *c* is preceded by any other vowel than *i* or *ia*, end in *ck*. But *almanac*, *sandarac*, *limbec*, *xebec*, *maniac*, and *havoc* are exceptions.

FINAL "OR" OR "OUR"

All words formerly ending in *our* with the *o* unsounded are now invariably spelled in America *or*; as *honor*, *labor*, *parlor*, etc. The only exception is the word *Saviour* in referring to Christ. In England the *u* is retained in many of these words.

FINAL "ISE" OR "IZE"

The only verbs ending with the sound of *ize* which are now spelled *ise* in this country are the following:—

advertise	compromise	enfranchise	premise
advise	comprise	enterprise	reprise
affranchise	criticise	exercise	revise
apprise	devise	exorcise	rise
arise	despise	improvise	supervise
catechise	disfranchise	merchandise	surmise
chastise	disguise	misprise	surprise
circumcise	divertise		

1. Derivatives from words ending with silent *c* after a consonant, as *pale*, *paleness*; *edge*, *edgeless*; *hate*, *hateful*; *chaste*, *chastely*, etc.

The words *wholly*, *nursling*, *abridgment*, *acknowledgment*, *judgment*, *lodgment*, and *wisdom* are the only common exceptions.

2. When the final *e* is immediately preceded by another vowel (except *e* or *i*), it is generally dropped before a consonant, as *true*, *truly*; *argue*, *argument*; *awe*, *awful*; *woe*, *woful*. But the *e* is retained in some words of this class, as *bluely*, *blueness*, *trueness*, *rueful*, *shoeless*, *eyeless*.

3. Derivatives from words ending with silent *e* omit the *e* when the termination added begins with a vowel (with the exception given below); as *bride*, *bridal*; *guide*, *guidance*; *use*, *usage*; *force*, *forcible*; *truc*, *truism*; *sale*, *salable*; *eye*, *eyeing*; *centre*, *centring*; *rule*, *ruling*; *mileage* is an exception.

4. Words ending with *ce* or *ge* retain the *e* before the words beginning with *a* or *o* to preserve the soft sound of the *c* or *g*; as *trace*, *traceable*; *change*, *changeable*; *courage*, *courageous*; *outrage*, *outrageous*. Legal usage, however, is in favor of *mortgagor*.

5. The *e* is retained in *hocking*, *shocking*, and *teeing*; and also in the words *dyeing*, *singeing*, and *tingeing* to distinguish them from *dying*, *singing*, *swinging*, and *tinging*.

6. Words ending with *ie* change the *ie* to *y* on taking the additional syllable *ing*; as *die*, *dying*; *lie*, *lying*; *vie*, *vying*.

FINAL "Y"

1. Words ending with *y* preceded by a consonant change the *y* to *i* before any termination not beginning with *i*; as, *contrary*, *contrarily*, *contrariness*; *icy*, *iciest*, *icily*; *merry*, *merrier*, *merriest*, *merrily*, *merri-ment*; *pity*, *pitiful*, *pitiless*, *piti-able*, *pitied*, *piticest*; *spy*, *spied*, *spies*.

2. Adjectives of one syllable ending in *y* are exceptions, and retain the *y*; as *sly*, *slyer*, *slyest*, *slyly*, *slyness*; *spry*, *spryer*, *spryest*, *spryly*, *spryness*; *dry*, *dryly*, *dryness*. But *dies* and *driest* are usually written with the *i*.

3. Derivatives of words ending in *y* which are formed by adding *ship* are also exceptions; as *ladyship*, *suretyship*. Also the words *babyhood* and *ladykin*.

4. Words ending with *y* preceded by a vowel, do not change the *y* before an added termination; as *gay*, *gayety*, *gayly*, *gayness*; *play*, *playful*, *playing*. The word *daily* is an exception, as are a few irregular verbs, like *said*, *saith*, *paid*, *laid*, etc.

THE PLURAL

1. The regular plural of nouns is formed by the addition of *s* to the singular; as *book*, *books*; *shoe*, *shoes*; *eye*, *eyes*; *straw*, *straws*; *horse*, *horses*, etc.

2. If the singular ends with *s*, *sh*, *ch* soft, or *x*, the plural is formed by the addition of *es*; as *omnibus*, *omnibuses*; *mass*, *masses*; *lash*, *lashes*; *church*, *churches*; *fox*, *foxes*.

3. If the singular ends in *o* preceded by another vowel, the plural is formed regularly by adding *s*; as *folio*, *folios*; *cameo*, *cameos*; *bamboo*, *bamboos*; *embryo*, *embryos*; *two*, *twos*.

4. If the singular ends with *o* preceded by a consonant, the plural is generally formed by adding *es*; as *echo*, *echoes*; *hero*, *herocs*; *motto*, *mottocs*; *potato*, *potatocs*.

5. Proper names ending in *o*, and the following common nouns, form the plural regularly, as *Neros*, and

albino	fresco	limbo	portico	solo
canto	grotto	momento	quarto	stiletto
cento	halo	octavo	rotundo	torso
domino	junto	piano	salvo	tyro
duodecimo	lasso	proviso	sirocco	

6. Nouns ending in *y* preceded by a consonant or by *qu* form the plural by changing *y* into *ies*; as *lady*, *ladies*; *mercy*, *mercies*; *body*, *bodics*; *colloquy*, *colloquies*. But if the *y* is preceded by a vowel, *s* only is added for the plural; as *boy*, *boys*; *day*, *days*; *valley*, *valleys*; but *ay*, *aycs*. Some proper names ending in *y* simply add *s* for the plural; as *Henry*, *Henrys*; *Tully*, *Tullys*.

7. The third person singular of verbs is formed in accordance with the foregoing rules; as *sides*, *marches*, *goes*, *begs*.

8. The following nouns ending in *f* or *fe* form the plural *f* or *fe* into *ves*; viz, *beef*, *calf*, *clf*, *half*, *knife*, *leaf*, *life*, *self*, *sheaf*, *wife*, *wolf*, and *wharf*. *Staff* is usually written *staves* in the plural. All other nouns ending in *f*, *fe*, or *ff* form the plural regularly; as *proof*, *proofs*; *strife*, *strifes*, etc.

9. The plural of the following words is made by changing the vowel sound of the singular; as, *man*, *men*; *woman*, *women*; *goose*, *geese*; *foot*, *feet*; *tooth*, *teeth*; *mouse*, *mice*. Compounds of these words form the plural in the same way; as, *dormouse*, *countrymen*. But the syllable *man* at the end of a word must not be mistaken for a compound of the word *man*; as *german*, *germans*; *talisman*, *talismans*. The plural of *ox* is *oxen*; *child*, *children*.

10. Many words derived from the classical or from foreign languages retain the plural form of the language from which they are taken, although many of them have also the regular English plural; as *crisis*, *crises*; *hypothesis*, *hypotheses*; *criterion*, *criteria*; *memorandum*, *memoranda*; *matrix*, *matrices*; *larva*, *larvæ*; *appendix*, *appendices*; *genus*, *genera*; *beau*, *beaux*; *bandit*, *banditti* or *bandits*; *scraph*, *scraphs* or *scraphs*.

Below is given a list of words the spelling of which is disputed, showing the opposing forms. The form given first is the one accepted by the higher authorities, whose criterion is, of course, the consensus of usage.

The tendency nowadays is to simplify the spelling of words. This has given use to two or sometimes more forms of the same word. Those in favor of spelling reform adhere to the simpler form. Those who believe that the word should in its form show some resemblance to the foreign word whence it was derived cling as persistently to the old form. This is largely the cause of disputed spellings. There are other factors which cause this duplication of form. Among these are local peculiarities of pronunciation which frequently distorts the form of a word. The most noticeable among the list here given are chemical terms such as bromin or bromine; iodin, iodine; chlorin, chlorine. The elision of the final e of this class of words conform to a resolution passed by the Chemical section of the American Association for the Advancement of Science advising such form to be adopted.

The best authorities are not always in our immediate reach, and in cases where such as are accessible are considered only mediocre, or are in conflict, a reference to this list will afford the desired information:—

LIST OF WORDS OF DISPUTED SPELLING.

abatis; abattis	aglet; aiglet
abetter; abettor	agriculturist; agriculturalist
abietin; abietine	aide-de-camp; aid-de-camp
abridgment; abridgement	aigret; aigrette
acacin; acacine	ajutage; adjutage
accessary; accessory	alanin; alinine
accounter; accountre	alantin; alantine
acetamid; acetamide	alcaide; alcaid; alcade
Achean; Achæan; Achaian	Alcoran; Alkoran
achenium; achænum; akenium; achene	Algonkin; Algonquin
acknowledgment; acknowledgement	aline; align; alline
acmite; akmite; achmite	alkahest; alcahest
aconitin; aconitine	alkali; alcali; alcaly
addable; addible	alouatte; alouate; allouatta
addorsed; adorsed; adossed	ambassador; embassador
adipocere; adipocire	ambergris; ambergrease
admittable; admittible; admissible	amianth; amiantus; amianthus
adz; adze	amidin; amidine
ægilops; egilops	amortize; amortise
æolididæ; eolididæ; eolidæ	ampere-meter; amperometer; ampere-meter
æpyornis; epyornis; epyornis	amphidisc; amphidisk
aerie; aery; eyrie; eery; airy	amphitheater; amphitheatre
agistor; agister; agistator	

- amylin; amyline
 anacoluthon; anacolouthon
 analyze; analyse
 anapest; anapæst
 anchoret; anchorite
 andesine; andesin
 android; androides
 anemia; anæmia
 anent; anenst
 annat; annate
 antecians; antæcians
 antemetic; antiemetic
 anthocyanin; anthocyane
 antiarin; antiarine; anthiarine
 antihypnotic; anthypnotic
 antimonureted; antimoniuretted
 apar; apara
 apheresis; aphæresis
 apheretic; apæretic
 apodictic; apodeictic
 apodixis; apodeixis
 apostil; apostill; apostille
 apothegm; apophthegm
 apothem; apotheme
 appal; appall
 appalment; appallment; appalement
 appareled; apparellled; appareld
 apprise; apprise
 appui; appuy
 arabin; arabine
 aræostyle; areostyle
 arbalest; arbalist; arblast
 arbor; arbour
 archeus; archæus
 ardor; ardour
 argol; argal
 armor; armour
 arnut; arnot; arnott
 arrondi; arrondee; arrondie
 arsenate; arseniate
 arshin; arshine; arsheen
 artocarpeous; artocarpous
 asafetida; asafætida
 asbestos; asbestus
 asbolite; asbolan; asbolane
 ashlar; ashler
 assizer; assizor; assisor; assiser
 astrean; astræan
 attar; ottar; otto
 attracter; attractor
 aubergist; aubergiste
 aunty; auntie
 auripigment; auripigmentum
 autopsic; autopsical; autoptical
 avellane; avellan
 aventurin; aventurine; avanturine
 avocet; avoset
 ax; axe
 ay; aye
 aye; ay
 azym; azyme
 babiroussa; babyrussa; babyroussa
 back-stairs; backstair
 backward; backwards
 bade; bad
 bailor; bailer
 bakshish; bakhshish; backshish
 balk; baulk
 ballatodæ; ballottade; balotade
 baluster; banister; balister
 bandanna; bandana
 bandoleer; bandileer; bandolier
 banian; banyan
 banns; bans
 bapistery; bapistry
 barbecue; barbacue
 bark; barque
 barreled; barrelled
 barytone; baritone; baryton
 basin; bason
 bass; base
 bastile; bastille
 bastinado; bastinade
 basyl; basyle
 battledore; battledoor
 bauble; bawble
 bayadere; bayadeer
 bazaar; bazar
 befall; befall
 behavior; behaviour
 belabor; belabour
 beldam; beldame
 benumb; benum
 benzin; benzine
 bergamot; burgamot
 berth; birth
 bestrew; bestrow
 betulin; betuline
 beveled; bevelled; bevilled
 biased; biassed
 binnacle; binacle
 binoxid; binoxide; binoxyde
 bisk; bisque
 bismuthin; bismuthine
 bismutite; bismuthite

bister; bistre	caviar; caviare
blamable; blameable	celiac; caeliac
bogie; bogey; bogy	centiped; centipede
boil; bile	chalcedony; calcedony
bombazine; bombasin; bombasine	chalice; calice
booze; boose; bouse	chap; chop
boozy; boosy; bousy; bouzy	char; chare; chore
bothie; bothy; boothy	check; cheque
bourgeois; burgeois	checker; chequer
brachiopod; brachiopode	chints; chintz
braize; braise	chlorid; chloride
brand-new; bran-new	cigar; segar
brazilin; brasilin; brasiline	clarinet; clarionet
bridesmaid; bridemaid	clew; clue
bridesman; brideman	clinch; clench
brier; briar	cloffs; clough
brooch; broach	coddle; codle
brucin; brucine	colander; cullender
brunette; brunett; brunet	coolie; cooly
brusk; brusque	coquette; coquet
bruskness; brusqueness	cordwain; cordovan
bryonin; bryonine; brionin	cotillion; cotillon
bucaneer; bucanier; bucaneer	courtezan; courtesan
bun; bunn	cozy; cosey; cosy; cozey
buncombe; bunkum	crawfish; crayfish
bunion; bunyon	crosslet; croslet
burnoose; burnous; burnos	crum; crumb
butyrin; butyrine	cruse; cruise
buxin; buxina; buxine	cyclopedia; cyclopædia
	czar; tzar; tsar
cacique; cazique	
cæsure; casura	dactyl; dactyle
calcareous; calcarious	daisied; dazied
caldron; cauldron	dangeld; dangelt
caliber; calibre	defense; defence
calif; caliph; kaliph; kalif	defier; defyer
caliper; calliper	deflower; deflour
calk; caulk	delft; delf; delph
calligraphy; caligraphy	demain; demesne; demean
caltrop; calthrop; caltrap	demeanor; demeanour
calyx; calix	dependent; dependant
camlet; camblet; caemlet	desolater; desolator
camomile; chamomile	despatch; dispatch
camphor; camphire	detector; detector
cannel; canal; candle; kennel	detractor; detracter
cannoneer; cannonier	develop; developpe
cantilever; cantiliver; cantaliver	divest; divest
carat; caract; carrat; karat	dialed; dialled
caravansary; caravansera; caravansery	diarrhea; diarrhœa
carnelian; carnelion; cornelion	dieresis; diæresis
cassava; cassada; casava; cassavi	dike; dyke
caster; castor	disburden; disburthen
catchup; ketchup; catsup; katsup	disenthral; disinthrall; disinthral

disabile; deshabille
 disheveled; dishevelled
 disk; disc
 disseize; disseise
 disseizin; disseisin
 dissolvable; dissolvable; dissoluble
 distil; distill
 distrainer; distrainor
 doctoress; doctress
 dodecahedron; dodecaedron
 dolor; dolour
 dory; doree
 dowry; dowery
 draft; draught
 dram; drachm; drachma
 dribblet; dribblet
 drier; dryer
 driveler; driveller
 drought; drouth; drout
 dryly; drily
 dryness; driness
 dueler; dueller
 dulness; dullness

edile; ædile
 eloin; eloign; eloigne
 embarkation; embarcation
 embassy; embassy
 embitter; imbitter
 embosom; imbosom
 embound; imbound
 emir; amir; ameer
 empale; impale
 emu; emeu
 enameler; enameller
 enamor; enamour
 encase; incase
 encenia; encænia
 enclasp; inclasp
 enclose; inclose
 enclosure; inclosure
 encumbrance; incumbrance
 encyclopedia; encyclopædia
 endeavor; endeavour
 endure; indure
 engulf; ingulf
 enroll; enrol; inrol; inroll
 enrolment; inrolment; enrollment
 ensnare; insnare
 enthrall; enthral; inthrall; inthral
 entwine; intwine
 envelope; envelope
 Eolian; Æolian

eolipile; æolipile; eolipyle
 epauleted; epaulettes
 ephah; epha
 epistolize; epistolise
 equaled; equalled
 equerry; equery
 equivoke; equivoque
 esophagus; æsophagus
 esthetics; æsthetics
 etiology; ætiology
 exactor; exacter

fagot; faggot
 farther; further
 favor; favour
 fecal; fæcal
 feces; fæces
 feldspar; felspar
 fetal; fœtal
 fetus; fœtus
 fie; fy
 filibeg; fillibeg; philibeg; filybeg
 flavor; flavour
 fleur-de-lis; flower-de-lis
 flier; flyer
 flotage; floatage
 fluke; flook; flowk
 foggy; fogie; fogey
 foray; forray
 foss; fosse
 foundry; foundery
 frantic; frenetic; phrenetic
 frowzy; frouzy; frousy
 frumenty; furmenty; furmety
 fueled; fuelled
 fogleman; fugelman
 fulfil; fulfill
 fulness; fullness
 fusee; fusil
 fusileer; fusilier

gage; gauge
 gaiety; gayety
 gaily; gayly
 galleass; galeas
 galosh; golosh; galoche; galoshe
 galtp; gault; golt
 gamboled; gambolled
 gang (mining); gangue
 gantlet; gauntlet; gantlope
 garrote; garote
 gasogen; gasogene
 gasolier; gasalier; gaselier

gasoline; gasolene
 gastropod; gasteropod
 gavot; gavotte
 gazel; gazelle
 gelatin; gelatine
 germane; germain; german
 gild; guild
 gipsy; gypsy
 glave; glaive
 gliadin; gliadine
 globulin; globuline
 glochidiate; glochidate
 glycerin; glycerine
 goiter; goitre
 goldilocks; goldylocks
 good-by; good-bye
 gormand; gourmand
 gram; gramme
 graveled; gravelled
 gray; grey
 groveler; groveller
 grue; grew; grouse
 gruesome; grewsome
 Guelf; Guelph
 guerrilla; guerilla

haggis; haggess; haggies
 hallo; halloo; hollo; holla; hullo
 halloo; hollo; holloa; hollow
 harbor; harbour
 harken; hearken
 harmin; harmine
 hashish; hasheesh; hashash
 hatcheled; hatchelled
 havesine; havesin
 havoc; havock
 hematic; hæmatic
 hemorrhage; hæmorrhage
 hiccup; hiccough; hickup
 hindrance; hinderance
 Hindu-ism; Hindoo-ism
 hoarhound; horehound
 homeopathy; homæopathy
 homonym; homonyme
 honor; honour
 hoope; hoopoo
 hostelry; hostlery; ostelry; ostlery
 hoveler; hoveller
 humor; humour
 humulin; humuline
 hureaulite; huraulite
 hypotenuse; hypothenuse
 hypoxanthin; hypoxanthine

idolize; idōlise
 ignorantin; ignorantine
 illegalize; illegalise
 illicin; illicine
 Illinoisan; Illinoisian
 immaterialize; immaterialise
 immersable; immersible
 immortalize; immortalise
 impaneled; impanneled; impanelled
 imperiled; imperilled
 incloister; encloister
 indart; endart
 indelible; indeleble
 indicter; indictor
 indigotin; indigotine
 indin; indine
 indiscerpible; indescrptible
 indite; endite
 indorse; endorse
 inferable; inferrible
 ingrain; engrain
 inventor; inventer

Jacobin; Jacobine
 jailer; gaoler; jailor
 jaunty; janty
 jenneting; geniting
 jetty; jutty
 jeweled; jewelled
 jowl; joll; jole
 julep; juleb; julap
 junket; juncate
 just; joust

Kaaba; Caaba
 kafir; kaffir
 kale; kail
 kaleidophone; kaleidophon
 kamila; kamala; kameela
 kapellmeister; capellmeister
 keelhaul; keelhale
 keg; cag
 kenneled; kennelled
 kermess; kirmess
 kernely; kernelly
 khamsin; kamsin

labeled; labelled
 labor; labour
 lac; lakh; lack
 lacrimal; lachrymal; lacrymal
 lanyard; lanard
 laureled; laurelled

- leach; leech; letch
 leotern; lecturn; lecturne
 ledgment; ledgement
 leger; ledger
 leucorrhea; lucorrhæa
 leveled; levelled
 libeled; libelled
 license; licence
 licorice; liquorice
 likable; likeable
 lingot; linget
 linnean; linnæan
 litchi; lichi; leeches
 liter; litre
 llama; lama
 lodestar; loadstar
 lodestone; loadstone
 lodgment; lodgement
 longe; lunge
 louver; louvre; loover

 macaw; macao
 maccaboy; maccouba; maccoboy
 mahlstick; malstick; maulstick
 mama; mamma; mammy; mammie
 mamelluke; mamaluke
 manchú; manchú; mantchú
 maneuver; manœuver; manœuvre
 margaron; margarone
 mark; marc
 marshaler; marshaller
 marten; martin
 martin; marten
 martingale; martingal
 marveled; marvelled
 meager; meagre
 medaled; medalled
 medic; medick
 medieval; mediæval
 metaled; metallled
 meter; metre
 milleped; milliped; millipede
 milreis; millrea; millree
 mistletoe; misseltoe; misletoe
 miter; mitre
 mizzle; misle; mistle
 mode; mood
 modeled; modelled
 Mohammedan; Mahometan; Mahomedan
 mold; mould
 molt; moult
 moneyed; monied
 moneys; monies

 monœcian; monecian
 mopsy; mopsey
 mortgagor; mortgager; mortgageor
 mullein; mullen
 multiplied; multipede
 murrine; murrhine; myrrhine
 muscatel; muscadel
 musrole; musrol
 mustache; moustache
 muxy; mucksy

 naught; nought
 neighbor; neighbour
 nilgau; nilghau
 niter; nitre
 noblesse; nobless

 obfuscate; offuscate
 ocher; ochre; oker
 ochery; ochry; ochrey
 octastyle; octostyle
 octogynous; octagynous
 octoped; octopede
 odalisk; odalisque
 odor; odour
 offense; offence
 oleomargarin; oleomargarine
 oligemia; oligæmia
 olio; oglio
 ombre; ombre
 omneity; omniety
 opuscle; opuscle
 orang-utan; orang-outang; orang-utang
 orthopedic; orthopædic
 ossein; osseine; osteine; ostein
 osteitis; ostitis
 otolith; otolite
 oxid; oxide; oxyd
 oyes; oyez

 pahlavi; pehlevi
 palestra; palæstra
 panchway; pansway
 pandour; pandoor
 paneled; panelled
 pantile; pentile
 pantograph; pantagraph
 papoose; pappoose
 pappose; pappous
 paraffin; paraffine
 paraleipsis; paralipsis
 paralleled; parallelled
 parallelepiped; parallelopiped
 paralyze; paralyse

parceled; parcelled
 pardao; pardo
 parlor; parlour
 parol; parole
 parrakeet; paraquet; paroquet
 parrel; parral
 partizan; partisan
 pasha; pacha; pashaw; bashaw
 pasquillant; pasquillant
 patchouli; patouchly
 peascod; peasecod
 pedler; peddler; pedlar
 pedlery; peddlery; pedlary
 pedobaptist; pædobaptist
 pemmican; pemican
 penciled; pencilled
 penology; pænology
 periled; perilled
 peroxid; peroxide
 petrolin; petroline
 pewit; peewit; pewet; peetweet
 phenician; phœnician
 phenix; phœnix
 phenology; phænology
 phenyl; phenyle
 picul; pecul
 piepoudre; piepowder
 pilau; pillau
 pincers; pinchers
 pipistrel; pipistrelle
 pistoled; pistolled
 pittizite; pitticite
 platyrrhine; platyrrhine
 plot; plat
 plow; plough
 pluviometer; pluviometer
 polyp; polype
 porcelane; porcellane
 portress; porteress
 pouter; powter
 practise; practice
 pretense; pretence
 pretor; prætor
 prillion; prillon
 program; programme
 prologize; prologuize
 provendor; provedore
 ptyalin; ptyaline
 pullicat; pulicat; pullicate
 purr; pur
 purr; purre
 purslane; purslain
 pyemia; pyæmia

quarreled; quarrelled
 quarterfoil; quaterfoil; quatrefoil
 quartet; quartette; quartetto
 questor; quæstor
 quintest; quintette; quintetto
 quitter; quittor

raccoon; racoon; rackcoon
 radical; radicle
 raffia; roffia; rofia
 raja; rajah
 rajput; rajpoot
 raki; rakee
 rambutan; rambootan
 rattan; ratan
 raven; ravin
 raya; rayah
 raze; rase
 reconnaissance; reconnoissance
 reconnoiter; reconnoitre
 redout; redoubt
 reenforce; reinforce
 referable; referrible
 regrator; regrater
 reremouse; rearmouse
 retroflexion; retroflection
 reveled; revelled
 reverie; revery
 reynard; renard
 rhubarbarin; rhabarbarin
 ridable; rideable
 ritornelle; ritornello
 rivaled; rivalled
 rotunda; rotundo
 roweled; rowelled
 rubicel; rubicelle
 ruche; rouché
 rundel; rundle
 ryal; rial

saber; sabre
 sabianism; sabaism; sabæism
 salaam; salam
 salep; salop; saleb
 salmi; salmis
 saltier; saltire
 saltpeter; saltpetre
 sambo; zambo
 samester; samestre
 sandarac; sandarach
 sanguinarin; sanguinarine
 sanhedrin; sanhedrim
 sanskrit; sanscrit

sapajou; sapajo	subungual; subungual
sapodilla; sapadillo; sappodilla	sufi; sofi
sappar; sappare; sapparite	sulfureted; sulphureted; sulphuretted
sarlak; sarlyk; sarlac; sarlik	swankie; swanky
sarsenet; sarcenet	swanpan; schwanpan
sassolin; sassoline; sassolite	swap; swop
scamel; scamel; scamell	swiple; swipel; swipple
scathe; scaith; scath	syenite; sienite
scepter; sceptre	sylvan; silvan
scotfree; shotfree	synalepha; synalœpha
scow; skow	synonym; synonyme
seawan; seawane; seawant	
sebat; shebat	tarpaulin; tarpauling; tarpawling
sebundy; sebandee; sibandi	tartan; tartane
seidlitz; sedlitz	tasseled; tasselled
seizin; seisin	tasset; tasse; tasce
seleniureted; seleniuretted	tatar; tartar
semeiography; semiography	taut; taught
semitic; shemitic	teazel; teasel; teasle
semolina; semolino	tellureted; telluretted
septemia; septæmia	tenail; tenaille
sepulcher; sepulchre	tendriled; tendrilled
sextet; sextette	theater; theatre
sestette; sextetto	theatin; theatine
Shakesperian; Shakespearean	tibet; thibet
shekinah; shechinah	tiffing; tiffin
sherif; scherif; shereef; shirriff	timbal; tymbal
shoveled; shovelled	tingeing; tinging
shriveled; shrivelled	tinseled; tinselled
silicious; siliceous	titbit; tidbit
sillibub; sillabub; syllabub	tole; toll
simitar; cimeter; cimiter; scimiter; scym- itar; cymeter	topi; topee
sirup; syrup; sirop	toweling; towelling
siscowet; siskiwit; siskowet	trammeled; trammelled
skeptic; sceptic; sceptick	tranquelize; tranquillize
skilful; skillful	tranship; transship
slay; sley; slaie	traveler; traveller
sloke; sloak	travertin; travertine
smolder; smoulder	trivet; trevet
sniveler; sniveller	troweled; trowelled
solan; soland	trundle-bed; truckle-bed
sollar; sollar; solar	tryst; trist
somber; sombre	tumor; tumour
somersault; somerset, summersault	tunneled; tunnelled
sorbin; sorbine; sorbite	turnsole; turnsol
spahl; spahee; sipahi	
spanceled; spancelled	ungeneraled; ungeneralled
spanemia; spanæmia	unmowed; unmown
specter; spectre	unspilt; unspilled
spicknel; spignel	uzbeg; usbeg; usbek
squatarole; squaterole	
stenciler; stenciller	valor; valour
	vapor; vapour

veil; vail
 vial; phial
 victualed; victualled
 vigor; vigour
 villainy; villany
 villenage; villeinage; villanage
 vertu; vertu
 vise; vice
 vizor; visor

whippletree; whiffletree
 whisky; whiskey
 whooping-cough; hooping-cough
 whop; whap
 withe; with
 wizen; wizen; weazen
 woful; woeful
 woolen; woollen
 worshiper; worshipper

wagon; waggon
 weir; wear; wier
 whelk; welk

zaffer; zafire; zaffir
 zoolitic; zoolithic
 zymic; zumic

STAPLE.—Principal commodity of a country or district.

STATUTE LAW.—Body of laws established by legislative enactment; written, as opposed to unwritten or common law.

THE ATTAINMENT OF SUCCESS IN STENOGRAPHY

By EDA C. HOWARD

IT is a significant fact that the United States Government is, at this writing, finding it very difficult to secure capable stenographers.

In the Land Office Department alone there are several vacancies for good shorthand writers, and the same condition exists in other departments. So critical has the situation become, that the Civil Service examiners are instructed by the government to endeavor to get as many applicants for these positions as possible. It is true that the examinations for government positions are so rigid as to debar those who have not a thorough knowledge of the art, but the fact remains that there are not enough good stenographers who are willing to give up positions which their ability has gained for them, to accept even a government situation, with its assurance of a life position.

The demand for good stenographers is constantly increasing, and the problem of meeting this increased demand is becoming serious. The supply of second and third-class shorthand writers is practically unlimited, but business men are realizing more clearly every day the necessity of having thoroughly competent stenographers, and they will not knowingly engage those who are not. They insist that every letter which is sent out shall be above criticism as to form, grammatical construction, punctuation, and spelling. They want to feel

that they can depend upon the good judgment of their stenographers to relieve them of much of the burden of their correspondence. Regarding the ordinary run of letters, they want to be able to have them answered by giving a few general instructions, without being compelled to dictate every word. They want to feel that slight grammatical errors, which are apt to creep into quickly dictated letters, will be corrected. In this way the stenographer becomes invaluable to the employer, whose time must be economized and for this reason, ability and attention to details will be more promptly and generously recognized in a stenographer than in any other position in business life.

The legal department of a great city recently urged the Civil Service Commissioners to offer double the maximum salary usually paid stenographers, as it was found impossible to secure the right sort without such inducement. There is plenty of room "on the upper floors" in this business edifice, and the fact ought to be an inspiration to every young man and woman who has chosen stenography as a profession. In addition to being pleasant and profitable, it has the peculiar advantage of throwing one into constant and intimate communication with heads of firms and the managers of great interests. It gives one a rare opportunity to become thoroughly familiar with every branch of business.

It is not easy to become a good stenographer. It requires hard work, patience, and perseverance, but success is within the reach of all who are ambitious and who are willing to pay the price. Those who practise constantly in order that they may increase their speed and efficiency will find that their work will be appreciated and their services in demand.

A good English education is a condition precedent to the study of shorthand. No one can possibly hope to be a good stenographer who is not familiar with the rules of grammar, punctuation, and spelling; and unless these rules are learned thoroughly, failure will be inevitable. The system of shorthand which the student chooses is also an important factor. A standard system, such as Munson's, Graham's, or Pitman's should be selected. It is desirable that the student attend regular lectures and continue to take lessons until able to write quickly and accurately, and to transcribe notes without hesitation.

If attendance at a stenographic school is impracticable, a thorough knowledge of the art may be acquired at home by closely following the course of instruction marked out in a standard text-book, but in this case the greatest care should be taken to avoid bad habits at the beginning of study. No one should take a position as stenographer until he or she is able to write with absolute accuracy at least one hun-

dred words per minute, and to transcribe the same perfectly. It is well to remember that in shorthand practice is everything, and that it should be persisted in until the student is able to take down, verbatim, the most rapid conversation.

There are thousands of successful men in every branch of business, and in every profession, who have used a knowledge of shorthand as a stepping-stone to their present positions. Indeed, a knowledge of this art cannot fail to be useful, no matter what subsequent position one may occupy. Frank A. Vanderlip, assistant secretary of the United States Treasury, says that a knowledge of shorthand was one of the most important factors in giving him his start in life, and it is safe to say that it has furnished opportunities to more people than any other single profession or business.

During the past few years, a great many women have entered the field of shorthand as a means of livelihood and have met with much success. There is no danger of having too many first-class stenographers. The demand will exceed the supply for many years to come.

STOCK.—Shares in the capital of a corporation.

STOCKHOLDER.—One who holds shares of stock.

SUBPENA.—A writ commanding a person to appear in court.

SUFFRAGE.—The right to vote for public officials or for proposed changes in the fundamental law, at an election in town, county, state, or nation.

SUNDRIES.—Unclassified articles.

SURETY.—One who binds himself to pay money in case another person fails to pay, to fill a contract, or to serve with integrity.

TABLES

THE METRIC SYSTEM—WHAT IT MEANS AND WHERE IT IS USED

One of the first difficulties which confronts the merchant in entering into trade with foreign countries is the diversity of weights and measures used by them.

COUNTRIES WHICH USE THE METRIC SYSTEM.—The principal systems of weights and measures used in various parts of the world are: The Imperial System, which is used in the United States, Great Britain, and all the British Colonies; and the Metric System, which is the legalized standard, and is used in the following countries:—

Algeria.	Colombia.	Italy (1845).	Senegambia.
Argentine.	Ecuador.	Java.	Spain (1853).
Austria (1876).	France (1790).	Madeira.	Sweden (1889).
Azores.	Fernando Po.	Mexico.	Switzerland (1875).
Belgium (1820).	Germany (1868).	Norway (1882).	Turkey.
Brazil.	Greece (1836).	Peru.	Uruguay.
Canary Isles.	Holland (1816).	Portugal (1852).	Venezuela.
Central America.	Haiti.	Roumania.	West Indies.
Chile.			

The population of the metric-using nations aggregates about 445,500,000. It practically includes the civilized world, except Great Britain, Russia, and the United States.

The Metric System has been authorized by Act of Congress in the United States, and by Act of Parliament in the United Kingdom.

Denmark is just introducing a bill for its use, and Russia adopted the system Jan. 14, 1901.

METRIC SYSTEM EXPLAINED.—The Metric is a decimal system, the meter being the basis of all measures, whether of length, surface, capacity, volume, or weight. It measures 39.37 inches, and is theoretically *one ten-millionth of the distance from the Equator to the Pole*. Where the measurements are too great to use the single unit, multiples of the unit are used, and are indicated by the Greek prefixes *deca*, *hecto*, and *kilo*, indicating respectively tens, hundreds, and thousands. When the quantities are so small that the unit cannot be conveniently used, decimal parts are taken, and are indicated by the Latin prefixes *deci*, *centi*, and *milli*, meaning respectively tenth, hundredth, and thousandth, as illustrated in the following table:—

1 millimeter.....	equals	$\frac{1}{1000}$	meter
1 centimeter.....	"	$\frac{1}{100}$	"
1 decimeter.....	"	$\frac{1}{10}$	"
1 meter.			
1 decameter.....	equals	10	meters
1 hectometer.....	"	100	"
1 kilometer.....	"	1,000	"

MEASURES OF LENGTH.—The unit of length is the meter (39.37 inches). The divisions are the decimeter, centimeter, and millimeter; the multiples are the decameter, hectometer, and kilometer. The meter, like the English yard, is used in measuring cloth, lace, moderate distances, etc. For long distances, like the mile, the kilometer is commonly used; but for short or minute distances, the centimeter and millimeter are used. The customary abbreviations in the measures of length are:—

mm.....	millimeter.
cm.....	centimeter.
dm ..	decimeter.
m.....	meter.
km.....	kilometer.

MEASURES OF SURFACE.—Measures of surface are derived from measures of length, and the unit is the square meter; but it must be remembered that a surface area is the product of its length and width—thus, a square centimeter would equal one hundred square millimeters. Hence the following:—

100 sq. millimeters equal 1 sq. centimeter.
 100 sq. centimeters equal 1 sq. decimeter.
 100 sq. decimeters equal 1 sq. meter.
 1,000,000 sq. meters equal 1 sq. kilometer.

The square meter is used, like the square yard, in measuring small areas—ceilings, floors, etc. In land measure the are is the unit, and is equal to a square decameter; the square meter is called the centare, one hundred square meters the are, and ten thousand square meters the hectare (2.471 acres), which is used like the acre.

CUBIC MEASURE.—Cubic measure is constructed in the same way, remembering that a cube is the product of the length, width, and height; a cubic centimeter would be a cube measuring ten millimeters each way and would contain 1,000 cubic millimeters. Hence—the following:—

1,000 cu. millimeters equal 1 cu. centimeter.
 1,000 cu. centimeters equal 1 cu. decimeter.
 1,000 cu. decimeters equal 1 cu. meter.
 1,000 cu. meters equal 1 cu. decameter.
 1,000 cu. decameters equal 1 cu. hectometer.
 1,000 cu. hectometers equal 1 cu. kilometer.

The unit is the cubic meter, which, like the cubic yard, is used in measuring embankments, excavations, etc., cubic centimeters and millimeters are used for minute bodies.

MEASURES OF CAPACITY.—Measures of capacity are based on the cubic meter, but as the cubic meter would be too large and unwieldy for ordinary purposes, the cubic decimeter was adopted as the unit, and the name liter was given to it. The liter is equal to 1.0567 quarts, and is used like the quart or gallon, multiples forming the larger, and decimal parts the smaller denominations, as follows:—

10 milliliters equal 1 centiliter.
 10 centiliters “ 1 deciliter.
 10 deciliters “ 1 liter.
 10 liters “ 1 decaliter.
 10 decaliters “ 1 hectoliter.
 10 hectoliters “ 1 kiloliter.

METRIC WEIGHTS.—The unit of weight is the gram (15.432 grains), and is the weight of a cubic centimeter of water at its greatest density—about 39° F.

Metric Weights.—Milligram ($\frac{1}{1000}$ gram) equals 0.0154 grn. Centigram ($\frac{1}{100}$ gram) equals 0.1543 grn. Decigram ($\frac{1}{10}$ gram) equals 0.5432 grn. Gram equals 15.432 grns.

Decagram (10 grams) equals 0.3527 oz.

Hectogram (100 grams) equals 3.5274 ozs.

Kilogram (1,000 grams) equals 2.2046 lbs.

Myriagram (10,000 grams) equals 22.046 lbs.

Quintal (100,000 grams) equals 220.46 lbs.

Millier or tonnea—ton (1,000,000 grams) equals 2,204.6 lbs.

METRIC DRY MEASURES.—Milliliter ($\frac{1}{1000}$ liter) equals 0.061 cu. in.

Centiliter ($\frac{1}{100}$ liter) equals 0.6102 cu. in.

Deciliter ($\frac{1}{10}$ liter) equals 6.1022 cu. ins.

Liter equals 0.908 qt.

Decaliter (10 liters) equals 9.28 qts.

Hectoliter (100 liters) equals 2.838 bus.

Kiloliter (1,000 liters) equals 1,308 cu. yd.

METRIC LIQUID MEASURES.—Milliliter ($\frac{1}{1000}$ liter) equals 0.0338 fluid oz.

Centiliter ($\frac{1}{100}$ liter) equals 0.338 fluid oz.

Deciliter ($\frac{1}{10}$ liter) equals 0.845 gi.

Liter equals 1.0567 qts.

Decaliter (10 liters) equals 2.6418 gals.

Hectoliter (100 liters) equals 26.417 gals.

Kiloliter (1,000 liters) equals 264.18 gals.

METRIC MEASURES OF LENGTH.—Millimeter ($\frac{1}{1000}$ meter) equals 0.0394 in.

Centimeter ($\frac{1}{100}$ meter) equals 0.3937 in.

Decimeter ($\frac{1}{10}$ meter) equals 3.937 ins.

Meter equals 39.37 ins.

Decameter (10 meters) equals 393.7 ins.

Hectometer (100 meters) equals 328 ft. 1 in.

Kilometer (1,000 meters) equals 0.62137 mi. (3,280 feet 10 ins).

Myriameter (10,000 meters) equals 6.2137 mis.

METRIC SURFACE MEASURES.—Centare (1 sq. meter) equals 1,550 sq. ins.

Are (100 sq. meters) equals 119.6 sq. yds.

Hectare (10,000 sq. meters) equals 2.471 acres.

The above tables were prepared by the Philadelphia Metric Commercial Museum.

This Metric Rule = a decimeter. The 10 divisions are centimeters. The small sub-divisions are millimeters.



TABLES AND FOREIGN COINS.—

Square or Surface Measure.	Long Measure.	Dry Measure.	Ale and Beer.
144 sq. ins. 1 sq. ft. 9 sq. ft. 1 sq. yd. 30¼ sq. yds. 1 rod, pole, or perch. 40 rods. 1 rood. 4 roods, or 4,840 sq. yds. 1 acre. 640 acres. 1 sq. mile.	3 barleycorns 1 inch. 12 inches . . . 1 foot. 3 feet . . . 1 yard. 5½ yards 1 rod, pole, or perch. 40 poles . . . 1 fur. 8 furlongs, or 1,760 yds. 1 mile. 3 miles . . . 1 league.	4 gills . . . 1 pint. 2 pints . . . 1 quart. 2 quarts . . . 1 pottle. 4 quarts . . . 1 gallon. 2 gallons . . . 1 peck. 4 pecks . . . 1 bushel. 8 bushels . . 1 quarter.	2 pints . . 1 quart. 4 quarts . 1 gallon. 9 gallons . 1 firkin. 36 gallons . 1 barrel. 1½ barrels . 1 hogshead. 2 barrels . 1 puncheon. 3 barrels . 1 butt.
Solid or Cubic Measure.	Sizes of Printing Paper.		
1728 inches 1 solid foot. 27 feet 1 yard or load.	Demy . . 22½ x 17½ Medium . . 23 x 18 Royal . . 25 x 20	Dble. Flscp. 27 x 17 Super Royal 27½ x 20½ Dble. Crown 30 x 20	Imperial 30 x 22 Dble. Demy 35 x 22½ Dble. Royal 40 x 25

FOREIGN COINS—THE ENGLISH EQUIVALENTS.

Countries.	Foreign Coins.	English Equivalents.	Countries.	Foreign Coins.	English Equivalents.
Argentina Republic...	Peso Nacional (Gold)	£ s. d. 0 4 0	Italy	Lira	£ s. d. 0 0 9½ or 25 to the £
Austria-Hungary {	Krone	0 0 10 or 24 to the £	Japan	Yen, prior to October, 1897.	0 4 0 (Par value.)
	Gulden	0 1 8 or 12 to the £		Yen, from Oct., 1897 (Gold)	0 2 0½
Belgium.....	Franc	0 0 9½	Mexico.....	Dollar (Gold)	0 4 2
Brazil	Milreis	0 2 3		" (Silver)	0 2 0
Bulgaria	Lew	0 0 9½ or 25 to the £	Morocco.....	Once	0 0 5½
			Norway	Krone	0 1 1½ or 18 to the £
Chile	Peso Fuerte, prior to 1898.	0 3 2	Paraguay.....	Peso.....	0 4 0
	Peso Fuerte in 1898.	0 1 6	Peru.....	Sol.....	0 4 0
China	Haikwan Tael	0 6 8 (Par value)	Portugal	Milreis.....	0 4 6
Costa Rica.....	Peso (Gold)...	0 4 0	Porto Rico....	Peso.....	0 2 6
Denmark	Krone	0 1 1½ or 18 to the £	Rumania.....	Leu.....	0 0 9½ or 25 to the £
Egypt	L. Egyptian (100 Piastres)	1 0 6½	Russia	Credit Rouble	0 2 0
	Piastre	0 0 2.46 97½ Piastres to the £		Rouble (Gold)	0 3 2
Finland	Mark (100 Penni)	0 0 9½ or 25 to the £		Kopeck.....	0 0 0½
France	Franc (25 to £)	0 0 9½	Servia.....	Dinar	0 0 9½ or 25 to the £
	Sous (5c.)	½ franc	Spain.....	Peseta.....	0 0 9½ or 25 to the £
	10 centimes....	1½ franc	Sweden	Krona.....	0 1 1½ or 18 to the £
German Empire {	Mark.....	0 1 0	Switzerland...	Franc	0 0 9½ or 25 to the £
	Krone.....	0 10 0	Tonkin.....	Piastre (Silver)	0 4 6
	Doppel Krone	1 0 0	Turkey	Piastre	0 0 2.16 or 100 Piastres equal 18s.
Greece.	Drachma.....	0 0 9½ or 25 to the £	United States	Dollar.....	0 4 2
Hayti	Gourde	0 4 0		Cent.....	0 0 0½
Holland	Gulden	0 1 8 or 12 to the £		Dime.....	0 0 5
India	Rupee	0 2 0 worth 1 2½	Uruguay.....	Peso Fuerte...	0 4 2
	Anna.....	0 0 1½	Venezuela.....	Bolivar.....	0 0 9½ or 25 to the £

NOTE.—The equivalents are not in all cases the exact equivalents of the exchange of the day, but rates which are convenient for comparisons over long periods. This applies especially to those countries with inconvertible paper currencies.

ENGLISH AND FOREIGN WEIGHTS.—

Standard Troy Weight.	Avoirdupois Weight.	Coal Weight.	Apothecaries Weight.
4 grains . 1 carat.	16 drams . 1 ounce	14 pounds . 1 stone.	20 grains . 1 scruple.
6 carats . 1 dwt.	16 ounces . 1 pound.	28 " . 1 qtr.cwt.	3 scruples . 1 dram.
20 dwt. . 1 ounce.	14 pounds . 1 stone.	56 " . 1 half cwt.	8 drams . 1 ounce
12 ounces . 1 pound.	28 pounds . 1 quarter.	1 sack 112 lb. 1 cwt.	12 ounces . 1 pound.
25 pounds . 1 quarter.	4 qrs. or 112 lb 1 cwt.	20 cwt. . . 1 ton.	Fluid Measure.
170 pounds . 1 cwt.	20 cwt. . . 1 ton.	This is the compulsory	60 minims. 1 flu. dram.
20 cwt. . 1 ton.	Used by Chemists.	weight for coal.	8 drams . 1 flu. ounce.
Jewelers and Silver-	.....	.....	20 flu. oz. . 1 pint.
smiths use this table.	.....	.....	8 pints . 1 gallon.

Foreign Weights.	English Equivalents.	Foreign Weights.	English Equivalents.
Austria-Hungary, Belgium, Bulgaria, France, Finland, Germany, Holland, Italy, Norway, Portugal, Rumania, Servia, Spain, Sweden, and Switzerland.		Ardeb of wheat (118 okes)	324.6 lb avoirdupois.
		Ardeb of maize (118 okes)	324.6 " "
		Ardeb barley (88 okes).	242.6 " "
		" rice (152 okes)..	418.3 " "
		Greece.	
Mètre	1.09 yard.	Ocque	2.84 lb avoirdupois.
Kilomètre.....	0.621 of a mile.	Quintal.....	123.2 " "
Square kilomètre.....	0.386 of a square mile.	Livre.....	1.1 " "
Cub. mètre.....	1.308 cubic yards.	Drachme.....	$\frac{1}{8}$ of an ounce.
Are... ..	0.0247 acres.		
Hectare	2.47 " "		
Kilogramme	2.204 lb avoirdupois.		
Quintal, metrique.....	} 220.4 " "	Japan.	
Centner " (double centner)		Ri	2.4403 miles.
Tonneau (coals).....	2.204 " "	Square ri	5.9552 square miles
Hectolitre (liquid measure)	22 Imperial gallons.	Tchô (long measure)..	5.4229 chains.
Hectolitre (cereals, etc.)	2.75 Imperial bushels.	Tchô (land measure)..	2.4507 acres.
China.		Ken	1.9884 yards.
Tael (weight).....	1.33 oz.	Tsubo	3.9538 square yards.
Catty.....	1.33 lb avoirdupois.	Kekku (liquid).....	39.7033 gallons.
Picul	1.33 $\frac{1}{2}$ lb avoirdupois.	" (dry)	4.9629 bushels.
Ts'un	1.41 inches.	Sho (liquid).....	1.5881 quarts.
Ch'ih.....	1.175 feet.	" (dry)	0.1985 pecks.
Chang.....	11.75 " "	Kwan	8.2817 lb avoirdupois.
Li	2.115 " "	Russia.	
Denmark.		Verste.....	0.663 of a mile.
Dansk mil.....	4.68 miles.	Sq. verste.....	0.44 of a square mile.
Geo. mil.....	4.61 miles.	Pood	36 lb avoirdupois.
Geo. sq. mil.....	21.195 square miles.	Berkovets	360 " "
Tondeland	1.36 acres.	Tchetvert	5.77 Imperial bushels.
Tonde (corn).....	3.8 Imperial bushels.	Dessiatine	2.7 acres.
" (coal)	4.6775 bushels.	Vedro	2.7 Imperial gallons.
" (beer).....	28.92 Imperial gallons.	United States.	
Pund	1.102 lb avoirdupois.	Bushel (Winchester) }	0.9694 of Imperial bushel, or 33 Winchester bushels = 32 Imperial bushels.
Pot	0.213 of an Imp. gallon.	Gallon (Old English) }	0.83 of an Imperial gallon, or 6 United States gallons = 5 Imperial gallons.
Egypt.		Barrel of flour.....	196 lb avoirdupois.
Oke	2.75136 lb avoirdupois.	Short ton.....	2,000 lb avoirdupois.
Cantar	99.05 lb avoirdupois.	Long ton.....	2,240 " "

TARE.—Allowance in weight or quantity on account of cash, bag, or covering.

TARIFF

The word tariff is probably derived from Tarifa, a town in Spain, where, while the Moors ruled, all vessels passing through the strait near by were obliged to pay duties to the governing chiefs. Marine taxes had, however, been exacted long before. Tariffs not unlike ours

were imposed by the Greeks and Romans, and England, in the 11th century, levied duties on ships and cargoes. In 1663, during the reign of Charles II., a regular schedule of rates was enforced. After 1846 the tendency in England was toward free trade. The corn laws were abolished, and in 1892 less than 20 articles paid revenue duties. The first Federal Congress in the U. S. enacted a tariff law that averaged below 8 per cent. *ad valorem* duties on imports. The bill became a law, but was in the nature of a compromise, as a majority of the Southern States favored a lower rate while New England and Va. favored a higher one, though not so high as Pa. advocated,—12 per cent. The tariff of 1816 was distinctly in the direction of protection, for in the face of protests from the agricultural section of the South, it advanced the tariff to about 25 per cent. on many important articles of manufactures. In 1824 there were further increases. Early in 1828 the “tariff of abominations,” as its opponents called it, was introduced in the House. It embraced the recommendations of a national convention of manufacturers held at Philadelphia, and increased the rate to 41 per cent. This tariff was advocated by Daniel Webster, who in 1824 had favored a low tariff. S. C. was foremost in the opposition and denounced the proposed tariff as unconstitutional, unjust, and oppressive. N. C. took a similar position, and Ala. and Ga. declared that Congress had no constitutional power to lay duties for protection. To appease the dissatisfied, President Jackson, in 1832, signed a bill reducing the duty on iron, increasing the tax on woolens, allowing certain raw materials to enter free, and leaving cotton as it was. The bill, however, retained the protective feature of the tariff of 1828, and S. C. went so far as to attempt to nullify this act by an ordinance which was repealed after the compromise tariff of 1833. Clay introduced the latter measure which provided for a gradual scaling of duties until the minimum and uniform rate had been reached in 1842. In that year the Whigs were in control of both Houses of Congress, and they enacted a protective tariff, which the Democratic President Tyler vetoed. The law of 1846, better known as the Walker tariff, made the principle of protection secondary to that of revenue. It passed both Houses, but in the Senate it required the casting vote of Vice-president Dallas. It lowered the average duty to about 25 per cent., and this was further reduced in 1857 to 20 per cent. By the Morrill tariff act of 1861, a protective revenue measure, the rates of 1857 were increased about 33 per cent. As the Civil War proceeded, the tariff was repeatedly raised, money urgently needed was realized, and manufacturing was greatly stimulated. The war tariff remained in force long after 1865. In 1882 a tariff commission visited different sections of the country for data on which to base a

recommendation for a reduction in rates. The commission suggested a cut of 20 per cent. President Cleveland, in his message to Congress of Dec., 1885, favored a reduction, and in 1889 he made it the sole subject of his message. The Mills bill, in which the President's views were incorporated, passed the House, but was defeated in the Senate. The 51st Congress, by the McKinley bill, raised the duties to an average of about 48 per cent. The Wilson bill, a low-tariff measure with an income tax provision, which was later declared unconstitutional, became a law without the President's signature in 1894, and in 1897 the present Dingley protective tariff went into effect. (See MCKINLEY, WILLIAM.)

TENANTS.—Those who lease or rent real estate.

TENANTS IN COMMON.—Those who hold property in common, *i. e.*, by distinct titles and not as joint tenants.

TESTATOR.—One who has made a will; feminine form is testatrix.

TOUCH TYPEWRITING

The use by nearly all standard machines of what is known as the "Universal Keyboard" has made it possible to teach the principles of typewriting by the touch method in such a way that the pupil who has mastered them on one machine can easily adapt them to the use of any other of the universal boards.

The student's work should be undertaken on a firm resolve to follow directions carefully, and to practise faithfully every lesson. The first thought must be of accuracy, without which the highest rate of speed will count for naught. For the student's encouragement he should remember that a rate of thirty words per minute in continuous writing is equal to one of sixty words per minute when the hands stop for half of the time while the eyes are on the copy.

The first step is to learn, from the book of directions which accompanies every machine, the uses of all the principal parts of the style of machine to be used. Every operator should know the mechanical construction of his machine so well as to detect immediately the slightest disorder, and to be able to adjust the simpler parts. Proper care of the machine, cleaning and oiling, are easily learned from the book of directions. Only the best oil should ever be used on a typewriter, and the machine must be kept closely covered when not in use. The type are cleaned with a brush, and should never be touched with a pin. When the brush is not sufficient, benzine should be applied.

A copyholder which holds the chart, exercise, or notebook, above the machine, and directly in front of the eyes, is by far the best. With its use the student naturally maintains a healthful, erect position, and a much less fatiguing one than that of bending over to look downward at the copy. A better light also can usually be had on the copy in this position than when it is lower than the machine.

The operator should sit at such a height that, when the fingers rest on the keyboard, the forearm is horizontal.

The starting point of the hands on the keyboard is the middle row, on which the fingers should be placed as follows:—

⁴ ³ ² ¹ ¹ ² ³ ⁴
 a s d f g h j k l ; .

An exact chart of this row of keys—one which the student can easily make for himself—is placed on the copyholder, and the positions of the letters are learned from this, and *not* by looking at the keys. The forefingers must strike *g* and *h* as well as *f* and *j*. This does not cause confusion, as it is easy to know whether one of these fingers is striking the key next the one occupied by the third finger, or whether it is reaching over one key to touch the next. Keys to the right or left of *a* and *;* vary in number, and in the signs represented, on different machines, and will be considered later.

On all machines the spacing is done with the thumbs. It is evident to the one who thinks for a moment, that taking the fingers from the board for this purpose would waste the time otherwise gained by touch writing. On double keyboards, and on the shift-boards that have shift keys at both sides, the work is so nearly the same for each hand that the spacing is divided between the thumbs, and the one that is nearest the space bar at the time should be used. On shift machines that have shift keys at the left only, the right thumb should do the work of spacing, as all the shift-
ing then falls to the left hand.

With eyes fixed steadily on the chart, write the letters of the middle row in their order from left to right, without spacing between the letters, as *asdfghjkl*; give a quick, light stroke, and do not hold the keys down. Train the fingers to strike with uniform force.

When several rows of the letters in order have been made, call them at random, and find the keys. Writing them in their order in the row becomes mechanical, and the student should test his knowledge of their positions by calling them in various orders, and finding their keys promptly.

When this row has been written until the fingers have acquired

an even touch, and each letter is easily found, several lines each of the following words may be written:—

as	sad	alas	falk	lags
ah	sag	asks	fall	slash
la	fad	sags	gash	flash
ash	gas	sash	gads	falls
ask	has	slag	half	salad
add	had	skag	hall	shall
aha	jag	dash	lass	alfalfa
all	lag			

If one hand is found more difficult to control than the other, it should be given special work on words that are written all or mostly with that hand.

The third bank of keys is our next lesson. The fingers must be brought up to this row as needed to strike the keys; but, when not in use, the fourth fingers are kept on *a* and *;*. It is necessary to have at all times a definite starting point, that the fingers may know in which direction to reach for a given letter.

4	3	2	1		1	2	3	4	
q	w	e	r	t	y	u	i	o	p

The copy is now a chart which shows the middle or second, and the third, rows. Follow explicitly on this row the directions given for the third, and practise until the letters can be found instantly in any order called.

we	top	tree	write	pretty
to	ire	trio	route	require
it	out	tire	troupe	twitter
wit	pet	your	utter	pottery
ere	quit	peep	equity	property
eye	were	pyre	repute	etiquette
rue	wire	quiet	totter	territory
two	ripe			

It is encouraging to note at this point the greater ease with which the letters of this row are learned, and the more uniform action of the fingers, than when beginning the first row.

The following words combine letters of the second and third rows. These should be practised very thoroughly, to train the fingers to move easily from one row to the other, before the lower row is studied.

adage	alert	gurgle	what	frigate
eager	father	thoughtful	kaiser	after
kodak	quarter	sirloin	wrinkle	worthy
adieu	radius	height	dictator	egotist
editor	arrogate	usually	daily	daughter
legality	future			

Examine each sheet of your work with the utmost care, and strive to avoid any faults that it may show. Patient and faithful work at this stage of the student's progress will yield him rich returns in all of his later work.

The chart will now show the first, or lower, row. The three keys at the right are rarely the same on two styles of machine.

z x c v b n m , . ?

The student will write as may appear on his machine, from left to right, etc.

Since words cannot be made of the letters at hand, it is necessary to draw for vowels on the other rows, using only consonants of the first row.

cob	men	bin	move	bone
vim	numb	vane	mamma	mix
box	cove	mum	above	oven
vex	boom	buzz	ox	moan
bomb	main	canna	beam	

Remember to touch the keys with only sufficient force to make a distinct impression. Turn the sheets over and see if the impress of the letters shows on the under side; if so, the keys have been struck too hard.

The words below give practice on passing the hands from the lower to the middle, and the middle to the lower rows:—

cash	bask	mammal	sack	jamb
call	bag	mash	fan	clash
cask	blanch	abash	ham	flax
chasm	back	nag	knack	blank

This exercise combines letters of the first and third rows, and is excellent practice:—

quiz	concrete	battery	prime
even	mixture	never	quiver
tremor	metric	crown	broom
improve	better	crypt	brine

We are now ready to use the letters of all the three rows, and words are easily found. The following are good, and the student can extend the list at pleasure:—

attract	exchange	millar	quaver	meadow
big	quorum	marry	narrative	brought
swim	varnish	plover	blossom	wax
trivial	eliminate	click	narrow	rock
gravity	dome	wonder	belong	flavor
secure	extricate	advise	dive	cringe
omnivorous	preliminary	captivate	weavil	marine
bird	zebra	nimble	cough	prairie

A chart of the full board may now be used,—capitals, figures, and all other marks.

On the double keyboard the capitals are found in the same relative positions as were the small letters. After making a few rows of these, to accustom the hands to the different position on the keyboard, write,

Aa Ss Dd Ff Gg Hh Jj Kk Ll Qq Ww Ee Rr Tt Yy Uu Ii Oo Pp
Zz Xx Cc Vv Bb Nn Mm

On the shift machines, the only point to learn in making capitals or other upper case characters is the proper manipulation of the shift keys. In touch writing the little fingers only can be used on the shift keys, and with a little practise they readily do this work. On a board that has a shift key at each side, the work is divided between the two little fingers, the left one being used when the right hand is to strike the type key, and the right one when the left hand is to be used on the type key.

On the boards which have one or more shift keys at the left only, the left little finger must do all the shifting, and the right thumb then does the spacing. A shift key must be held firmly until the desired letter has been made, and released promptly when a small letter is to be made.

Europe	Raleigh	South America
Brighton	Homer	Great Eastern
Alps	Leigh	Niagara Falls
Philippines	President Grigg	United States Senator
North American Review	London Times	Daily Eagle
Harvard University	Adjutant General Howard	Don Quixote

On the upper row of keys, which vary so widely with different machines, the student will easily apply the principles taught and illustrated for the other rows.

The keys at the sides of the board, beyond those that have been learned, must be struck with the little finger, in order to keep the hands as nearly as possible in their prescribed positions.

There seems to be no especial order in learning the punctuation marks. Some have been learned by this time from their positions in the rows with the small letters. The others should be practised, and when they are thoroughly familiar, the exercises may be used.

, ; : . ? ! - ()

U. S. Oh! How? non-union "Now," said he. Hudson's (Aside.) We quote: Man proposes; God disposes.

Figures are next in order, and may be best learned

0 1 2 3 4 5 6 7 8 9

Perhaps more annoying and dangerous mistakes occur in striking the wrong figure than in making wrong letters. For this reason the student should give himself a thorough drill in their use.

123321 102534 901201 510435 5280 53 876 425970
12357308 6750320 76 100020 430053 105 1776

The remaining characters may form one lesson, and complete the study of the keyboard:—

— * \$ / @ % ¢ + = °
\$500 8 ¼ 25% @34¢ * * * No, no.

A space should always follow a comma, semicolon, and colon; three spaces, a period, interrogation, or exclamation point.

Any matter may now be used for practice. The forms of legal papers give excellent drill; actual business letters should be copied, matter containing many figures, names, addresses, etc.

Some practice should be had each day in taking dictation directly on the machine.

In all writing, note carefully the marginal spacing, making it perfectly even at the left, and as nearly so as the correct division of words will admit, on the right. The width of the margins differs; but on legal, and business-letter, size, from an inch to an inch and a half should be allowed at the left, with a little less at the right, and at the bottom of the page.

In the Circuit Court of Browne County, Kentucky, May Term, 1894.

J. M. JOHNSON, <i>Plaintiff</i> ,	}	MOTION TO SET ASIDE SHERIFF SALE.
<i>vs.</i>		
B. W. MORROW, <i>Defendant</i> .		

In the Circuit Court of Browne County, Ky., September Term, 1888.

State <i>Ex. Rel.</i> W. E. MALLORY, <i>Plaintiff</i> ,	}	PETITION FOR MANDAMUS.
<i>vs.</i>		
H. J. CONNOR, R. B. BRIGGS, and		
S. V. SMITH, <i>Defendants</i> .		

Beginning at a point three hundred and sixteen (316) feet north of the northwest corner of Block fifty-two (52) in the town of Salem, Pennsylvania, thence east one hundred and twenty-five (125) feet, thence south sixty (60) feet, thence west one hundred and twenty-five (125) feet, thence north sixty (60) feet to the place of beginning.

TRADE DISCOUNT.—An allowance made to dealers in the same line.

THE LAST QUARTER OF A CENTURY'S TRADE EXPANSION

By WILLIAM F. KING

President of the Merchants' Association of New York



NO PORTION of the history of the United States will be read by future generations with greater wonder than that in which is recorded the story of the marvelous growth and expansion of our commercial interests during the last half of the nineteenth century, just closed. The story is as fascinating as any that ever fell from the pen of a Balzac or a Dumas, and has, moreover, the additional charm of truth.

Previous to the Civil War, which marked the beginning of the era of our commercial supremacy, the growth of the country was slow. The people, by the hardest work, dug their living from the soil, and were compelled to rely upon themselves for nearly all the necessities of life, even making their clothes on the old-fashioned wooden loom. They thought slowly, and took a week to do what is now accomplished in a day. The man who could give his wife a new silk dress each year was regarded as "well off," while a fortune of fifty thousand dollars seemed as great as three million dollars now.

It was the day of the small shopkeeper, whose stock of goods included, possibly, two or three bolts of silk, imported from England or France, a few rolls of gaudy calico, some white sheeting, and a few other staples, with the usual pins, needles, and thread. Such a supply was, however, sufficient to meet the demands of the people.

The outcome of the war was a new era of expansion and speculation. Large amounts of money passed into circulation and Cræsus-like fortunes were made. The abundance of money caused the people to become extravagant, and to live on a scale of magnificence never before attempted in America. New wants were created, to supply which, especially in the matter of dress and luxuries, our merchants scoured the markets of the Old World, and soon saw their establishments expanding like mushrooms under their very eyes.

Before this time the merchant could not send an order to Europe and have it executed under six months' time. Sailing vessels were the only

means of communication, and the business community found itself hampered in all directions by its inability to quickly secure and deliver goods.

The laying of the Atlantic cable, the establishing of telegraphic lines, the extension of the railways, and the general introduction of steam vessels, on ocean and river, brought the desired relief. Rapid communication increased a hundredfold the dry-goods merchants' capacity for handling business. The lines of goods in stock grew so rapidly in number that merchants were frequently forced to add more capital to their businesses, in order to meet the demands of trade. Small shops, in the centers of trade, expanded into the modern department stores before their proprietors themselves fully realized the change.

The wholesale dry-goods business had a similar evolution. It was not so many years ago that the large establishments were confined to New York, Boston, and Philadelphia, which cities did nine-tenths of the business of the country. To-day, Chicago, St. Louis, New Orleans, St. Joseph, Kansas City, and San Francisco, are great distributing points, not only for dry goods, but for merchandise of all kinds.

During the seven years following the close of the war, the prices of all commodities became so inflated that a reaction was inevitable. The panic of 1873 swept away fortunes as a flood-swollen river sweeps away bridges and houses before it. Fictitious values collapsed, over-capitalized corporations became bankrupt, and small businesses were wiped out of existence.

The panic was the result of a combination of causes. There had been an overproduction of manufactured goods, but instead of an increasing demand for this large supply, a failure of crops caused it greatly to decrease. Our merchants were loaded down with foreign goods for which there was no market. This state of depression continued for three years, during which time soup-houses were opened in New York, Boston, and other large cities, to feed the hungry and starving hordes of men, women, and children, for whom there was no work. There were many men, however, whose pride led them to revolt at the idea of becoming objects of charity. What they wanted was work, work of any kind in order that they might provide for their families.

It was at this juncture that William E. Dodge, Anson Phelps Stokes, and John D. Crimmins came forward, in New York, with a plan to aid the needy. These, and other rich men who owned large tracts of unimproved land upon the upper west side of the city, set hundreds, and even thousands, of men at work to grade this land and to get it ready for the market. The employment thus given was sufficient to tide many over the crisis. A turn in the tide came in 1876, with the holding of the Centennial Exposition in Philadelphia.

No one who passed through them can forget the horrors of those few years. A vast army of tramps over-ran the country, carrying terror like a pestilence in their wake. Farmers used their grain for fuel, because it was cheaper than wood or coal. Public improvements were at a standstill. Under the hot breath of adversity many industries shriveled and died. The harvests of Europe had been abundant and the workshops busy, so that, for a time, there was no relief in that direction for our congested markets.

It seems strange, does it not, that in the world's economy we sometimes profit by the losses and afflictions of others? The great famine in India, in 1876, and the utter failure of the crops in Europe, in 1877 and 1878, created a demand for our surplus stocks of grain and goods. So quickly did we recover from the results of the panic that the year 1879 saw the resumption of specie payments.

The remarkable development of the railroads of this country since the Civil War is one of the best proofs of our prosperity. It was during the speculative period following that event, and again in the late 'seventies and early 'eighties, that the distant portions of Uncle Sam's territory were knit together by chains of steel. An abundance of money and unlimited credit were the forces that stimulated financiers to build railroads across wide stretches of plain and desert, over the peaks of the Rockies, and on into the garden-lands of the Pacific Coast.

The completion of the Union Pacific showed that nature had reared no barriers that American skill and daring could not surmount. Then came the Atlantic and Pacific, the Santa Fe, the Northern Pacific, and the Southern Pacific lines in the Far West, enterprises that called for enormous expenditures of money and brains. In the meantime, railroad building was progressing in the East. Feeders to trunk lines were constructed and absorbed with a rapidity that was astounding to visitors from the Old World. The West Shore, paralleling the New York Central, projected, it is said, for the purpose of "embarrassing" that corporation, was built. So great was the demand for steel rails that the rolling mills, running day and night, could not meet the demand.

It was found, however, that railroad building was being overdone; that lines had been constructed for which no business of any importance was obtainable; that many stocks and bonds that had been floated at par were worth little more than the paper on which they were printed. Some of the roads that were built became bankrupt and were purchased by the trunk lines at ridiculously low prices. The Hudson River Railroad, which ran from New York to Albany, absorbed the New York Central, extending from Albany to Syracuse, the Syracuse and Rochester, and other roads, until it owned a continuous line from New York to Buffalo. From time to time, feeders were purchased, or leased, until the New

York Central, as it is now called, controls a trunk line to Chicago. The Pennsylvania system has a history similar to this.

This consolidation of the railroads was made necessary by the great expense involved in their equipment and operation. The weaker competing lines were forced to make traffic agreements with the stronger lines, or to go out of business. Between 1880 and 1884 many roads went into the hands of receivers. Through the introduction of economical methods in handling business, and the consolidation of several roads under one management, the cost of operation was reduced to such a point that the fixed charges could be met and dividends be paid to the stockholders. Many big corporations were reorganized and placed on a firm foundation. Between 1888 and 1892, the railroad mileage of the country was again expanded with old-time fervor.

I believe we have now passed the skyrocket period of railroad development, and that, in future, the efforts of financiers will be directed to the still further consolidation of the great and small lines of travel. The public has never been served as well as at the present time. Rates for the transportation of freight and passengers have been reduced to a point entirely within reason. The road-beds are kept in thorough repair by skilled workmen; the trains, especially the limited ones, are as luxurious in their appointments as a king's palace; the number of accidents has been reduced to a minimum by the introduction of the block, and other signal systems.

The same conditions that brought about the consolidation of the railroads have resulted in the union of industrial enterprises. Take, for instance, the mills devoted to the manufacture of woolen cloths. Formerly, a factory turned out, perhaps, twenty different lines of goods. When the required stock of one kind of cloth was supplied, the looms must be readjusted, new yarns run in, new patterns laid out, and a new start made generally. These frequent changes added heavily to the cost of production.

Then a clear-brained man appeared, and argued that, by combining a dozen or more of these mills, it would be possible to so arrange the work as to increase the output, reduce expenses, and make more money, three most desirable results from the manufacturer's standpoint. The several plants were examined by experts who determined the kind of work for which each was best adapted, and a consolidation of the factories under one general management was effected. Now one of these mills is kept running the year round on one style of goods, such as broadcloth, or tweeds, or worsteds. No time is lost in taking out one weave and putting in another, and the quality of the product is improved, and the output increased. The invariable result of these industrial combinations has been a reduction in the prices of the articles sold.

One of the great factors in determining the cost of goods to the retailer is the cost of the transportation of merchandise from the original point of purchase. Before the trunk lines were established, freight destined for Chicago, Milwaukee, or St. Paul, was sent by the canals to Buffalo, where it was loaded upon sailing vessels and taken across the lakes to its destination—a slow and tedious process. Merchants who could not wait for their goods to be shipped in this way, and did not mind the expense, ordered them to be forwarded by rail. If they went by the way of the Hudson River Road, on reaching Albany they were taken out of the car and delivered to the New York Central, which placed them in its cars and hauled them to the end of its line, where they were transferred to the connecting road. In this way, the freight was handled six or eight times before reaching the man to whom it was consigned.

Compare this slow method with that now used. A car-load of goods travels, on express schedule, from New York to Chicago, and even to San Francisco,—three thousand miles away,—without once breaking bulk. The handling and rehandling of freight at terminal points has largely been done away with, through the adoption of traffic agreements, under which cars are hauled over the different lines of railroad to their destinations, without being opened. The introduction of more economical methods of handling freight has so greatly reduced the cost of transportation that a car-load of goods can now be delivered in Los Angeles at about the same rate that was paid a few years ago for its delivery in Chicago. The low charges on fruits grown in California and shipped in refrigerator cars across the continent to the Atlantic coast have made it possible for the growers to deliver in New York, oranges, pears, apricots, and cherries, at prices which seem ridiculously cheap, when the quality of the fruit, and the long distance, are considered.

In spite of all the calamity howling of the anarchists, the socialists, and the pessimists of our day, capital and labor are more closely allied than ever before in the nation's history. The line between the two is not so carefully drawn as it once was. The tyranny of the labor unions is lessening, and employers are, as a class, treating their men with greater consideration. When I state that this condition of affairs is largely due to the formation of trusts or combinations of capital, no doubt some of my readers will think I am mistaken, but such is my belief. There is a marked tendency among thrifty workingmen to invest their savings in these great industrial institutions, which, in many localities, are taking the place of the savings banks as depositories of surplus earnings. I am informed that for several years it has been the policy of the Standard Oil Company to encourage its employees to acquire stock in the corporation. The stock is sold to them on such

favorable terms that they are able to buy it without in the least crippling themselves. As a result, many linemen, agents, and superintendents have thus acquired stock from which they are now in receipt of a good income.

Other corporations have followed the example of the Standard Oil Company and the number is being increased from year to year. The officers of these institutions are anxious to have their employees become stockholders, because they know that they will take a greater interest in the business, and will do all in their power to protect and advance its welfare.

From a workman's standpoint, investments in these trusts are desirable for several reasons. First, is the pride one feels in being a stockholder in a great financial enterprise, with which men of national reputation and wealth are affiliated. Second, is the knowledge that the business is conducted by the best talent money can procure, and that his investment is as safe in their hands as in a bank, while it draws a better interest.

I have been asked how the opportunities for young men to get on in the world in the dry-goods business compare now with those of thirty years ago. In reply, I would say that they are much more numerous, and promise greater financial returns. The creation of those large emporiums of trade, called department stores, has brought about a demand for specialists in the different lines who are paid salaries that a few years ago would have been considered princely. A boy of 1875 was obliged to begin at the bottom and learn all departments of the business. To-day, such has been its expansion, that a boy learns only one or two branches, for the reason that he has not the time or opportunity to learn more. If he masters these thoroughly, however, he becomes a valuable factor in the business, and he can command a handsome salary.

A small merchant who was able to make \$1,000 or \$1,500 a year conducting a store, now receives twice, or thrice, that amount as the head of a department. While young men have to-day greater opportunities for making money than ever before, because there are more responsible positions to fill, they have fewer chances to become their own masters, owing to the condensation of the dry-goods business. Where formerly there were a dozen stores, each conducted by an individual owner, there is now one huge establishment doing business on a colossal scale. A group of such establishments, operated and owned by a single corporation, is called a trust.

Trusts are the natural outgrowth of trade conditions that cannot be changed. Much of the talk we hear about them is the veriest bosh. In these days of enlightenment there is no such thing as a trust in its strictest sense. No corporation, no matter how colossal, can long defy public

opinion. To be successful it must be managed by men of brains and ability. Brains can and do command a greater income in managing such corporations than if engaged in conducting a small business or in a coöperative concern for the distribution of goods. The reason for this is that large amounts of capital are ready to go into any enterprise which promises a return of from four per cent. to six per cent. Such corporations are attractive, not only to the wealthy, but to men of small means, who know that their money is reasonably safe and has just as good a chance to bring large returns, proportionately, as the capitalist's millions.

These combinations with millions of capital have made possible the earning of salaries never dreamed of in the old days. Presidents of insurance companies receive from \$50,000 to \$75,000 a year; presidents of industrial institutions as much as \$100,000, while Mr. Schwab, the president of the steel trust, is said to receive an annual fortune of half a million dollars. Of course, these are the prizes of the world, yet five-thousand-dollars-a-year places are more plentiful now than were the thousand-dollar places in the early 'sixties, or prior to the war.

The expansion of this nation means much to the youth of the country. It means increased opportunities for acquiring wealth and position, both here and abroad. It means that America, in the near future, will be in command of the markets of the world, and that those who are to direct its destinies have before them a career such as has never been dreamed of even by the most visionary of our citizens. We are destined to become the greatest maritime nation, because we hold the keys to the great storehouses from which other lands must draw supplies. Enough coal, iron, and copper, lie buried here, to meet the demands of all peoples for centuries to come.

England is alarmed at the rapidity with which American enterprise is crowding her manufactures out of the home and foreign markets. We can make and deliver machinery and structural iron at a lower price, and in less time, than can any foreign manufacturer. England's main idea has been thrift and conservatism. The time has now come when she must get out of the rut or her factories will be obliged to close.

In view of the facts which I have already enumerated, and from the outlook for the future, I think I am warranted in saying that the opportunities for young men to succeed in life and make comfortable fortunes are fully tenfold greater than they were twenty-five years ago. It must not be forgotten, however, that very much more is required. A young man of mediocre talents, who has neglected to prepare himself properly for the great struggle of life, has little chance of success. He is handicapped at the very start, and cannot expect to win. Thoroughness of preparation is the important thing to be remembered by the youth of the land.

The one thing we have to fear is the tendency to extravagance, which is apparent among all classes. The entire European world, noting this fact, regards with great apprehension the future of our country, and expresses doubt as to a continuation of its prosperity on the present basis. The study of the economic conditions that have prevailed abroad for the past hundred years leads to this conclusion. If our young men and women will curb their extravagant tastes in dress, in amusements, and ways of living, there is no question in my mind as to the future prosperity of the nation, and the happiness of the people.

WINNING THE WORLD'S TRADE

By CHARLES R. FLINT

OVER night, almost, the United States has grown into a great exporting nation. Merchants and manufacturers who, all their lives, have been busy fighting for the home markets, with no thought beyond, suddenly find themselves thrust into the world where eager purchasers are clamoring for their wares. In the space of six years, our exports have grown from \$824,000,000 to \$1,477,000,000, an increase of over \$650,000,000. Nothing so amazing has ever been recorded in the history of the world. The mere increase, almost approximates the total exports of France, a country that, not so many years ago, led the United States as an exporting nation. The increase in our exports represents a gain of over seventy-five per cent., in six years. That this increase is to continue in an even greater ratio, is shown by the Treasury reports of our exports so far this year (1901). For May, we showed an increase of \$11,000,000 over the record of May, 1900, and an increase of \$21,000,000 over the record of May, 1899. The total exports for the month of May amounted to \$124,589,029. May is by no means our best exporting month, but the total of that month this year, is almost as great as was the total of a whole year's exports fifty years ago. Figures such as these speak more strongly than words, of the enormous progress we have made in our dealing with the outside world. Literally, we are crowding every field abroad. As one English paper said recently: "To-day it is literally true that they (the Americans) are selling American cotton in Manchester, pig iron in



Lancashire, tin plate in Cardiff, and steel in Sheffield. It only remains for them to take American coal to Newcastle."

With few exceptions, Americans, in the past, have not actively sought foreign markets. What has come to them was obtained largely without solicitation. The enormous increase in exports is due, not to a systematic effort to sell goods, but to the excellence of the goods produced by the perfected American machinery. It has been found that we can produce goods of a better quality at a lower price than any other nation. This holds good of staple articles that can be reproduced again and again in the same pattern. In these lines, where special and changeable designs are demanded, the American has had no share, nor can he hope to obtain a share. Goods of that description are produced principally through hand-labor, and our labor is too expensive to compete in that field. We are strong where our workmen act, not as direct producers, but as supervisors of improved machinery. Concerns making special articles susceptible of such reproduction, have only been required in the past to persistently send samples of their wares to the foreign markets, in order to obtain a considerable trade without much effort or serious competition. Now, however, we may look for active competition from two directions. There will be a general rush on the part of all American producers, for a share in this very desirable foreign business, and the European manufacturer, seeing his market slipping away from him because of the advanced methods in machinery of the American, will seek to copy these methods and this machinery. The foreigner's success in this direction, has been indifferent, but he is sending his young men to us to observe our ways and copy our methods, and it is reasonable to suppose that, in a few years, he will have put himself fairly abreast of the times, and will give us, if we are not careful, a hard fight to hold the markets which are now fairly tumbling into our lap.

It is essential, therefore, that the American manufacturer and merchant should not be content with merely filling the orders that come in, but that he should cultivate and enlarge the opportunities that are now his. Once he is fairly established, he may be reasonably sure of holding his trade, for the foreign consumer is conservative, and strong inducements must be offered him, to induce a change of base, once he has formed the habit of buying in certain quarters. But this habit has to be formed, and, aggressive as the American is, he has heretofore not done much in that direction. The methods to be employed to secure trade abroad are very much the same as those that must be employed in securing domestic trade. The first thing to do is to study the market carefully. This can be done best by sending a thoroughly equipped representative into the field. It is not always enough that the goods to be sold are better and cheaper than the goods sold by other manufacturers.

The foreigner is not accustomed to our rush methods, and is not always susceptible when they are applied. It is necessary, therefore, to study his idiosyncrasies and cater to them.

For example, in South America the American salesman is almost invariably beaten by his German competitor; not because the German's goods are any better—often they are not so good—but because the German lends himself to the peculiar customs of the country. The South Americans are a fine, hospitable race, generous and considerate, and, with fair treatment, they are easily won. Unfortunately, the average American makes the mistake of underestimating their ability and genius. He does not understand their character, and, nine times out of ten, runs afoul of what he considers their peculiarities. He fails to understand that these peculiarities are only peculiarities in his eyes, and that it is his part to recognize this and conform to them. The ordinary American understands only the American method of selling goods. He wants to go into a town, arrange his samples, show his wares, take orders, and depart. That sort of thing will not work in our foreign trade. Whether it is in South America, Europe, or the Orient, the salesman will find that he must adopt different methods. He must first get in touch with the people whom he wants as customers.

When a salesman enters a foreign town, he must make it his duty to call on all the leading merchants without mentioning trade. Social relations should be established, and, as a matter of course, courtesies exchanged. It is well to keep business in the background, for a while. The result of this will be, that the merchant, of his own accord, will request that the samples carried by the traveler be shown, and, on this basis, trade may be established. Of course this system should not be adopted universally. Each country, whether in South America, in Europe, Asia, or Africa, has its peculiar characteristics, and the thing to do is to study these characteristics. It is idle to expect that a man whom you want as a customer will mold himself to your ideas; instead, you must mold yourself to his. The wise business man is quick to understand this.

Another thing of great importance is the packing and preparation of goods. With the average American, the package is of little importance. What is wanted are the goods inside. With the foreigner, in many cases, the wrapper is almost as important as the contents.

Too much emphasis cannot be laid on this question of packing. In the future, the foreigner may be relied on to recognize the superiority of American goods, regardless of their envelope. For the present, however, while we are still engaged in building up our reputation and establishing our trade marts, it is absolutely essential that we should conform to the demands of foreign buyers, by furnishing goods prepared

in the way that they have been accustomed to receive them for years,—in many cases, for centuries. It is a singular thing that, whereas, in shop trade, America has long led the world in the way of wrapping, little or no attention, comparatively, has been paid, until recently, to this branch of the business by manufacturers and wholesalers.

In the retail shops of England, France, and Germany, as well as in the South American and Oriental countries, goods are delivered to buyers without any attention to the wrapping. Old newspapers are considered good enough for such a purpose, where there is any wrapping at all. In many of the countries, goods are delivered across the counter without any wrapping. Such an elaborate system of parcel wrapping as prevails in our retail stores here, large and small, is unknown. On the other hand, foreign merchants have been accustomed, for many generations, to receive their goods from the manufacturers in the most compact and portable shape. Out of this has grown a habit of demanding goods that need little or no wrapping, after they are put on the shelves for sale in the retail establishments. It is the duty of the American firms that want to share in this trade, to study this question with great care, and to adapt themselves, as much as possible, to the custom in this regard. Of course, there are some cases where the American cannot, profitably, follow these demands. In such cases, he has little chance for competition; and, on the whole, it is well, perhaps, for him, if he does not try to enter these fields, which may well be left to the English and Germans, who, like ourselves, do not depend upon the duplication of machine-made goods, but rather upon the cheapness of their labor in producing just what is wanted in various shapes and sizes.

Nothing else has helped more to stimulate our foreign trade than the excellent work of our consuls. In theory, our consular system is the poorest of any of the great nations; in practice, it is the best. Every time a new president is elected, there is, practically, a complete change in every important consulate. This means that, just when a man is thoroughly mastering the field in which he is operating, he is recalled, to make way for a new appointee. In the nature of things, one would suppose that this continual changing would demoralize the consular service, and render it useless for the purpose for which it was established. A man entering the United States consular service has no future, no career, the situation entirely differing, in this regard, from that existing in the services established by England, Germany, France, and other countries. Yet, in spite of this handicap, so great is the superiority of the average American, that it is conceded, abroad, that we get better and more important service out of our consuls than does any other country. This is due to the fact that the American, in every rank of life, is a keen, shrewd observer, and a "hustler." The foreign consul is content to sit at his post and do as his

predecessors have done. The American is instinct with a desire for new and improved methods, and the man appointed to a consular post plunges into his work at once, determined to make a record. How much more might we get out of our consuls, if the hustling, observing spirit was further stimulated by an assurance of permanency as a reward for good work, and a chance of promotion! That there would be a great improvement is easily conceivable. It is more than probable that Congress will enact measures along this line, by which the efficiency and the value of the consular service will be greatly enhanced.

The foreigners are beginning to appreciate the value of our consular methods. This is shown by the numerous foreign newspapers that are urging their governments to copy the better features of our plan. Speaking of the methods of American consuls, one of the papers says:—

“Every shipment of goods to a United States port must pass through the hands of the American consul, vice-consul, or consular agent for the district from which the goods are sent, and the amount, value, place of origin, market price ruling in the country of production, the method of production, and similar data, are carefully noted. In virtue of this system, the United States obtains valuable information, which is used to the best advantage at home, and, naturally, is of great assistance to American exporters, who know exactly what is wanted abroad, and where it is wanted, and, consequently, have not to work blindly or to pay dearly for the lessons of experience. Still more important is the fact that the Americans obtain all this information practically gratis, since the foreign producer or shipper not only is obliged to supply the above data, but has to pay more or less heavy fees for the consular signature, which alone is taken in proof that these formalities have been fulfilled.”

Another factor that may be relied on to enlarge our trade abroad, is the tendency that is showing itself in the way of restoring our supremacy as a nation of ship owners. It is undoubtedly true that trade follows the flag. While, in our own case, it is shown that the establishment of foreign trade does not depend necessarily upon carrying goods in our own bottoms, still it is undoubtedly true that the flag helps materially. England owes much of her world-wide commerce to the fact that her flag flies in every port. If we can do what we have done without this stimulus, with it, our progress will be rapidly increased. Everything that encourages American shipping is to be carefully fostered by those merchants and manufacturers who seek to have a share in our commercial expansion. From this standpoint alone, the measure that has been discussed for stimulating American shipping, the ship subsidy, is a good business proposition. Viewed, too, from another standpoint, it is a measure that should command general support. To-day, we are paying

hundreds of millions of dollars to foreign ship owners for carrying our products to the markets of the world. This money should be kept at home. Instead of enriching foreigners with our freights, we ought to do our own carrying, and keep the money in this country. Such a course would add materially to our prosperity. The vast sums we are now paying out to foreign carriers is a tremendous drain.

There is one point to be rigorously observed by every house that wants to send its goods abroad. The foreign trade is not worth cultivating unless it is to be a permanent trade. It is too expensive a proposition for a mere temporary outlet. Therefore, the man or the concern desiring to go into this market should see to it, first of all, that, once in the field, he has every prospect of remaining there. The main consideration is to supply a standard quality of goods. Strict honesty is absolutely essential. Everything sold must be exactly as represented. To send high-grade goods at the beginning, and then to let the quality drop, is worse than folly. It is a good form of business suicide. Whatever else he may be, the foreign buyer is generally a shrewd judge of values, and it is impossible to deceive him more than once. True, there is a considerable market, especially in South America, for adulterated goods of a certain form, but this market is not worth cultivating. It is controlled at present by the English, and we may well rest content to let them have this control. It is a question merely of time when the people who are now buying these goods will awake to the fact that they are not receiving value for their money, and then the reaction is bound to do great damage. So far, the American manufacturer has been very wise in not seeking to enter into competition with the Englishmen in the matter of selling adulterated and inferior articles.

The Chinese are very clever buyers, even the poorest of them. They demand cheapness; but they also demand quality. The result is that in that market cheap American cottons control, and the flimsy material of British manufacture has no chance.

America is thoroughly awake to her destiny as the great commercial world power, and she is preparing herself to live up to this destiny. No better indication of this is to be had than is shown by the fact that everywhere we are taking special means to produce a class of high-grade merchants. Within the past few years, nearly every city in the land has established special commercial classes in the public schools, and many of the leading universities now have complete commercial courses. This movement cannot be too much encouraged. It assures us of a generation of young men who will be thoroughly equipped to handle and control the trade of the world. Such men are absolutely necessary. In conjunction with our advanced system of manufacture, which to-day is the finest on earth, these young men will make for America a permanent

place in the front in the struggle for the foreign markets. It is written that we shall be the world's storehouse, and it is our duty to do everything in our power to equip the coming generation, in every possible way, for its great task.

TRADES UNIONS.—Organizations of workingmen formed to enable the members to secure rights and privileges, fair wages, and economic conditions most favorable to labor.

TRANSIT DUTY.—Tax imposed on goods in passing through a country.

TRAVELING AND TRANSFERRING FUNDS

LARGE AMOUNTS OF CURRENCY SHOULD NOT BE CARRIED BY TRAVELERS—SAFETY OF DRAFTS—USE OF LETTERS OF CREDIT IN TRAVELING ABROAD—EASY METHODS OF IDENTIFICATION AT ANY FOREIGN BANK—PASSING GOODS THROUGH THE CUSTOMHOUSE—THE AMERICAN TARIFF—TRANSFERRING MONEY BY CERTIFIED CHECKS AND CASHIER'S CHECKS—MONEY ORDERS AND REGISTERED LETTERS.

THERE is a variety of banking devices for commanding money easily and safely when traveling, and for transferring money from place to place. It is unwise to carry large amounts of currency about the person. It involves not only temptation to thieves in hotels and railway trains, but the risk of loss through carelessness. A certain amount of currency is necessary for daily needs, but banking credits of various kinds are preferable, when one travels from one business center to another. Checks upon one's personal account, which may be carried in blank, are sufficient in many cases, but they are not always accepted from a person who is not well known. A good plan, if checks are carried, is to make part payment in advance for hotel expenses, when one stops at a hotel of good standing, giving the proprietor time to collect the check before one's departure. A business man or woman will probably find his or her personal checks acceptable where they have become well known for prompt payment. There are several forms of banking credits, however, which are more readily negotiable than are personal checks. Among these are banking drafts upon a commercial center, certified checks and cashier's checks. Drafts are equally useful for sending by mail or for making personal payments.

Bank drafts are much safer than an equal quantity of currency, because if stolen they cannot be readily negotiated. The attempt to negotiate them involves skillful forgeries, and identification at a bank, unless the forger can get them accepted by some business man. Drafts are similar to cashier's checks drawn upon other banks. They simply direct the bank upon which they are drawn to pay a given sum of money to the person named in the draft. Such drafts can be readily transferred by endorsement in any business town. If they bear the usual marks and signatures, moreover, they will be accepted even by a stranger, as, for instance, in the payment of a hotel bill, much more readily than would a personal check. Banks away from New York, and particularly in the West and South, are generally glad to receive drafts upon New York, because they entitle them to money there which they might otherwise have to send by express, or themselves pay the cost of exchange. The same is true, more or less, of drafts drawn upon any commercial center, like Chicago or St. Louis, and offered in the radius of territory doing business with them. A small charge is sometimes made for the issue of drafts, but usually only a few cents for several hundreds of dollars.

Certified checks also are useful for making payments of importance, where one is not known, or where the certainty of the validity of the check is an important element in closing the transaction. A certified check is a personal check, that has received the endorsement of the cashier of the bank upon which it is drawn, that it is good for its face value. The cashier satisfies himself that at least the amount of the check is on deposit to the credit of the maker, and makes a memorandum that the deposit is charged with the amount. He is then able to certify to the value of the check without running any risk of loss to the bank. A certified check is more acceptable than is the check of an individual, because it bears the stamp of the bank and its promise to pay. Certified checks are often required by banks in payments of interest for their clients, especially from persons who are not well known to them. They are sometimes required by municipal governments in the payment of taxes. A man or woman, for instance, who owed interest on a mortgage, might receive notice from a bank where the mortgage was left for the collection of the interest, that the payment must be made by certified check. A simple request addressed to one of the tellers, or to the cashier of one's bank, is sufficient to secure prompt and courteous certification of the check. No charge for the service is usually made.

A form of check serving somewhat the same purpose as the certified check, is the cashier's check. This is signed by the cashier of the bank, and drawn in favor of the person asking for the check, or

of such person as he may designate. The person asking for the check should give the cashier in payment a check upon his own account for the amount of the cashier's check asked for. The latter may be drawn upon some other bank. Nearly all national banks have deposits in New York or in some other large city. A person having a payment to make in New York, would find a cashier's check drawn by the cashier of his own bank in Ohio or Kentucky, upon its reserve agent in New York, more acceptable as a means of payment to a New York firm than would be his individual check upon his home bank. He would, accordingly, give to the cashier a check upon his own account, and would receive in return a check drawn by the cashier upon the New York agent of the bank. Some business firms stipulate on their bills and accounts that they must be paid in certified checks or in cashier's checks upon some large city. One of the objects of this is to avoid certain charges which are made by city banks for the collection of country checks. It is obvious that it must cost something, however small, to make all the necessary clerical entries in exchanging checks between different banks. There is also the cost of expressage or postage, and sometimes charges for the actual shipment of money. There is, still further, the loss of the interest upon the amount of the check while it is being sent home for collection. The loss upon a single check may be trifling, but upon a large volume of checks, constantly on the wing, as it were, between the city and hundreds of interior places, the amount of money out of the immediate use of the bank, and upon which it is losing interest, is large enough to be a material element in its profits. The system of making a charge of a few cents for collecting checks has recently been introduced in several large cities and, whether these charges are fully justified or not, in all cases, the reasons why they were proposed are obvious from the facts just stated.

The letter of credit is one of the most convenient and ingenious devices for enabling travelers to carry the title to large sums of money at almost no risk. Letters of credit are issued by several leading exchange houses and bankers of New York, and other large cities, and these letters of credit can be obtained by any bank in the country upon the application of a customer. Many banks take the trouble to post notices that they issue letters of credit. In most cases, it will be found that they simply act as agents for the New York exchange houses, but it is proper and convenient for the traveler to deal with his local bank rather than to attempt to deal directly with the exchange houses. Letters of credit are not usually issued for less than \$500. They consist of a folded sheet, bearing upon its face the body of the letter, and upon another page a memorandum for enter-

ing the payments which are made. The illustration on the adjoining page shows the face of a letter of credit issued by a leading New York company.

The essential operation of the system of letters of credit is that a firm of established resources and standing authorizes the traveler to draw upon its agents in all parts of the world for the sum of money which forms the limit of the letter of credit. Nearly all the leading commercial banks in Europe are agents of the New York firms which issue letters of credit. They have not entered into elaborate articles of agreement in many cases, but are willing to accept a draft by the traveler upon the bank issuing the letter, because they know that it will be promptly paid. They are agents in the same sense that any bank is an agent of another which accepts a check drawn upon the other. In the case of letters of credit, however, the checks or drafts drawn by the traveler are known to be good, because the letter of credit certifies that he has a certain amount on deposit with the company issuing the letter, and it is known that that company is a bank, or exchange house, of character and standing.

The traveler, starting for Europe with his letter of credit, does not use it until he lands on the other side. It is necessary for him to take in American or English money such funds as he needs for fees and expenses on the steamer. English money is preferable on the English steamers, as all their transactions are expressed in pounds, shillings, and pence. Before starting upon the voyage, the traveler will find it most convenient, therefore, to exchange, at a New York broker's, some American money for English gold and silver. This will be independent of the amount invested in his letter of credit. Upon landing in Liverpool, for instance, without a penny in his pocket, he can go at once to the Victoria Street branch of the Bank of Liverpool and present his letter. He will find few difficulties, or none, in obtaining such sum as he wishes. The banker will simply ask him how much he wants. He should be sufficiently familiar with English money to make his answer in its terms. If he wants about \$50 he should say, "I would like £10." The banker will then fill out a draft for £10, requesting the house which issued the letter of credit to pay that amount to the Bank of Liverpool and to charge it to the account of the traveler. The banker will push this draft over the counter to the traveler for his signature. The traveler should read the parts filled in, in order to see that no mistake has been made as to the amount, attach his signature, and hand the draft back to the banker. The latter will glance at the signature on the draft, and then at that on the letter of credit, to see if they are alike, and will

LETTER OF CREDIT

FOURTH NATIONAL BANK

LETTER OF CREDIT,
No. 16723

New York, April 15, 1902

Dear Sirs:

We have to request you to be good enough to furnish Mr. Frank F. Davis, of this city, whose signature is written below, with such funds as he may require, to the amount of Thirty-five Thousand Francs in gold, against his receipts, in duplicate (one of which you will forward to us), for such sum or sums as you may make under this credit.

This letter and the request contained herein is intended to continue in force until Jan. 1, 1903. Such sums as may be paid to Mr. Davis shall be endorsed upon the back of this letter and charged to the account of

Your obedient servant

The Fourth National Bank

George Simpson

PRESIDENT

SIGNATURE OF

Frank F. Davis

TO MESSIEURS:

The Bankers named and addressed on the third page of this letter.

then hand over the money, or a slip entitling the holder to the money at another counter.

Bankers in Europe usually make no objection to paying amounts asked upon letters of credit, without any inquiry as to the identity of the parties. Comparison of the signatures affords such a sufficient safeguard that it is said that hardly a pound has ever been lost by a payment upon a letter of credit through fraudulent representations. The traveler will find, however, if any difficulty arises, that the house which issued the letter of credit has sent to a few leading points a copy of his signature. This is obtained before he leaves the country, by a request that he fill up a sheet with half a dozen or more copies of the signature. These copies, sent perhaps to London, Paris, Berlin, Vienna, and Rome, will obviate any risk that the signature upon the letter of credit may be altered by any one finding it or stealing it. The fact that these duplicate signatures exist at the leading money centers of Europe, is doubtless a restraint upon thieves in making use of letters of credit, and contributes to the safety with which payments are made upon them all over the world.

The banker who accepts and pays a draft upon a letter of credit will fill in upon the letter the amount of the draft. This is partly for the convenience of the traveler, affording him a memorandum of the amounts he has drawn, and partly a convenience to other bankers, in preventing an attempt to draw more than the balance due upon the letter. It is partly also a proof that the payment was actually made by the bank sending the draft to the New York house which issued the letter. The entry will be made in the money of the country where the draft is drawn, so that the traveler cannot determine to a cent the amount drawn or the margin available, unless he is able to calculate exchange to a nicety, but a general knowledge of the comparative values of foreign and American money, will enable him to tell within a few dollars, at least, whether he has reached the limit of his letter of credit. The balance due to him will be promptly adjusted upon his return to this country, or at any time, by the transmission of the letter to the issuing house.

The loss of a letter of credit should be promptly communicated to the leading banks which are named as the agents of the issuing bank. This should be done by telegraph, if it cannot be done by personal notice in a leading financial center. The loss of a letter of credit is not likely to be attended by serious consequences if prompt action is taken. It may be necessary to prove one's identity at a leading city bank, and to submit to some expense for cable communication with the issuing bank in New York, but arrangements can soon be made by reputable persons to have the credit renewed, and

notice given to leading banks to pay nothing upon the old letter if presented by the finder.

It is well, when going abroad, to make some arrangements with one's banker by which more money can be put to one's credit, if necessary, than the amount of the letter of credit which is taken. Changes of plan, larger expense than was anticipated, or some temporary difficulty regarding the letter of credit, will thus be met by a cable or mail communication with one's home banker, or with the company issuing the letter of credit. One of the best plans is to authorize one's banker to pay over to the exchange house issuing the letter of credit such sum as may be directed by cable. Arrangements should then be made with the exchange house regarding the terms and signature of such a message. As the cable companies charge for the address and signature of a message, at the same rates as the body of the message, most firms in the United States having any considerable business abroad, file with the cable companies an address including only one word. This address should be known to the traveler, and he should also arrange for a special signature, representing his last name, if the name is not a common one, but, otherwise, some combination which will be distinctive. The mere designation of the amount desired, without other words, will be sufficient for the body of the message, if the matter has been previously arranged. It may be advantageous to have such a message sent by the foreign agents of the New York house, rather than directly by the traveler.

A person traveling in foreign countries will be subject to the search of his baggage for the enforcement of the customs laws. Nearly all countries levy some sort of taxes, called customs duties, upon foreign goods entering such countries for use there. These duties are limited in some countries to a few articles. Thus, in England, the only articles for which a traveler's baggage is likely to be searched are tobacco, tea, and coffee. England is what is called a free-trade country, where duties are levied upon articles which are not produced in the country. There is no other country pursuing this policy so strictly. The continental countries of Europe, however, while they levy high duties upon wholesale consignments of goods, are not severe in their scrutiny of the personal baggage of travelers. A traveler from London to Paris, or from Brussels to Paris, upon a through train, does not have to submit to the customs inspection of his trunks until he reaches his destination. His hand baggage may be examined at the frontier, but the mere opening of his satchel and the announcement, "Nothing dutiable," in English or French, usually relieves him from any further search or scrutiny. Even in regard to his trunks, the continental customs officers are usually lenient. They

ask, perhaps, to have the tray lifted, take a look at the general contents of the trunk, and mark it to be passed without payment of duties. This course is pursued only in the case of travelers who are not expected to reside in the country in which they have arrived. A more serious effort to collect duties upon their baggage might be made, if it were known that they were bringing the goods into the country to be left there.

The system of examining passengers' baggage is much more severe in the United States, especially in New York. It was formerly the custom to pass any articles which were for the personal use of the traveler, no matter how large the amount. In deciding whether the traveler was bringing the goods for sale, some regard would be had to his social station and wealth, but duty would not be levied upon personal effects which were clearly shown to be such, and not intended for sale. The law of 1894 declared that "wearing apparel and other personal effects (not merchandise) of persons arriving in the United States (shall be free of duty), but this exemption shall not be held to include articles not actually in use and necessary and appropriate for the use of such persons for the purpose of their journey and present comfort and convenience, or which are intended for any other person or persons, or for sale." This was changed in the "Dingley Law" of 1897, so as to read as follows:—

"Wearing apparel, articles of personal adornment, toilet articles, and similar personal effects of persons arriving in the United States; but this exemption shall only include such articles as actually accompany and are in the use of, and as are necessary and appropriate for the wear and use of such persons, for the immediate purposes of the journey and present comfort and convenience, and shall not be held to apply to merchandise or articles intended for other persons, or for sale.

"Provided, That in case of residents of the United States returning from abroad, all wearing apparel and other personal effects taken by them out of the United States to foreign countries shall be admitted free of duty, without regard to their value, upon their identity being established, under appropriate rules and regulations to be prescribed by the Secretary of the Treasury, but no more than one hundred dollars in value of articles purchased abroad by such residents of the United States shall be admitted free of duty upon their return."

This change of law subjects passengers arriving at New York to much questioning and to a close search of their baggage. It will be observed that two important changes have been made in the old requirements. A person cannot in any case bring in, free of duty, goods valued at more than \$100, and he cannot even bring in articles of this value unless they fall under the definition, "wearing apparel, articles of personal adornment, toilet articles, and similar personal effects." This language is held at the New York customhouse to exclude small pieces of bric-a-brac, books, and practically everything

which cannot be worn or has not immediate connection with the person. There is no minimum limit for assessing duties. An article costing less than a dollar is often singled out for the assessment of duty. Blank forms are distributed before the arrival of the steamer at the pier, which are signed by the passengers in the presence of a customs officer, but these are largely a formality. Since few passengers are familiar with the 705 paragraphs of the tariff, it is well for a returning traveler to declare that he is not aware that he has any articles subject to duty, and to submit to the examination of his baggage. This examination is sometimes very minute, but usually more careless.

Where duties are levied under the law of the United States, they are for a very large proportion of the value of the article, and are levied at the price actually paid, but not less than the wholesale market price. A person who has bought a picture or a piece of bronze at retail will be compelled, if he makes a truthful declaration, to pay duty upon the retail price, and not upon the wholesale price at which duty will be made by the large importer; but if the article had been given to him without cost, he will be required to pay at least the duties due upon the wholesale value as paid by the importer.

The American tariff is complicated, and levies high duties upon clothing of all kinds, chinaware, and nearly all manufactured articles. These duties are of two kinds, specific and *ad valorem*. *Ad valorem* duties are levied, as the meaning of the Latin words implies, according to value. A duty of 60 per cent. *ad valorem*, for instance, is levied by the existing tariff upon decorated china. Specific duties are those which are levied by the pound, ton, or number of articles without regard to value. Thus, certain sizes of gloves are charged a duty of \$3 per dozen pairs, and other sizes \$4 per dozen pairs. These are only simple illustrations of a very complicated system. The duties on many articles are both specific and *ad valorem*, and the articles are classified by the number of threads to the square inch, and in other ways which enable only experts to determine their classification and the duties to be paid. A person bringing in a consignment of clothing, bric-a-brac, chinaware, or bronzes, would, upon arrival in the United States, probably have to pay at least half as much as their price in duties to the government, and very probably more than half.

Articles manufactured abroad can be imported through the post office, but a good deal of red tape is involved in the process where the goods are subject to duty. Books in foreign languages are among the few articles that are free of duty. In the case of other articles, it is a question whether they cannot, in most cases, be imported to

better advantage through a dealer than directly by the purchaser. When sealed packages, believed to contain articles liable to duty, are received in the foreign mails, notice is sent to the person to whom they are addressed to appear at the post office and to there open them in the presence of an officer of the customs. In case customs officers are not accessible, the postmaster is required to retain the packages, after they are opened by the person to whom addressed, and to report the nature and probable value of the contents to the nearest customs officer, who will thereupon notify the postmaster what he considers the proper duties. Such duties must be paid before the packages are surrendered to the owner.

The importation of merchandise by regular traders in foreign goods is organized upon an elaborate system. The process involves a great variety of legal documents, from the invoice, which is presented to a United States consul abroad for his certification, until the final delivery of the goods to the person to whom they are invoiced in this country. There are customhouse brokers in New York, and at other important points, who are familiar with the manner of doing customhouse business, and who should be consulted or employed when such business is to be done upon any considerable scale. The tariff laws are strict regarding the valuation put upon imported goods by the invoice, and incorrect valuations are subject to heavy penalty. Goods on reaching the United States pass through the hands of several classes of customhouse officers,—examiners, who determine the character of the goods; appraisers, who determine their value; and computing clerks, who determine the duties which are due. There are methods of appeal from the decisions of the customs officers to the board of general appraisers and the United States courts, but they necessarily involve delay and expense. A complete code of customs regulations, making a volume of nearly eight hundred pages, is issued by the Treasury Department, but it would require elaborate study to enable a person to determine, without the aid of a lawyer or customhouse broker, all of the rules governing importations.

The transfer of money from place to place is an important branch of modern banking. The sending of a check by ordinary mail is usually sufficient for the settlement of obligations at distant points within the United States. A check drawn upon one's own account in a national or state bank is usually acceptable for small amounts in the settlement of ordinary transactions. There are occasions, however, where a certified check, a cashier's check, or a draft upon a leading city, is preferred, and may be asked for, by a creditor. These forms of payment are more nearly in the nature of cash, because they are likely to be accepted as the equivalent of cash by a city

bank. An individual check upon a distant bank rests only upon the good faith of the maker of the check, until it has been returned for collection to the bank upon which it is drawn. As this might require a week or more between distant points, a person making a payment which he desires to be at once available, would better employ one of the other forms of check, or a draft. This may be important in obtaining the immediate shipment of goods, which might otherwise be held back until an individual check had been collected from the bank on which it was drawn. A draft drawn upon a New York bank, offered in payment in the South or West, is especially acceptable, because such large payments have to be made by those sections in New York, that an obligation entitling the holder to money at the metropolis is often at a premium. This is the nature of a draft upon a New York bank, whether given by a bank close at hand or far removed from New York.

SENDING MONEY THROUGH THE POST OFFICE

The postal service offers facilities for transmitting money in two forms,—the post office money order and the registered letter. Money orders are substantially in the nature of post office drafts. They are issued at money-order offices, which include all free delivery offices, and about 30,000 offices in all, but do not include all of the small post offices. Money orders must be paid for in legal-tender currency or in national bank notes. Postmasters and their assistants are forbidden to accept checks, drafts, or notes, in payment of money orders, and it is made a misdemeanor, with punishment by fine, to issue a money order without having received the money for it. The charge for the issue of money orders is graded according to the amount of the order. Three cents is charged on sums not exceeding \$2.50; five cents on larger sums, not exceeding \$5; eight cents on orders up to \$10; ten cents up to \$20; twelve cents up to \$30; fifteen cents up to \$40; eighteen cents up to \$50; twenty cents up to \$60; twenty-five cents up to \$75; and thirty cents up to \$100.

A money order is not issued for more than \$100, but additional orders may be issued to the same person. The only limit now imposed upon such issues is that not more than three orders for \$100, drawn upon the same fourth-class post office, shall be issued to one person. There is no limit upon the orders that may be issued when drawn upon different offices.

When application is made for the issue of a money order, the applicant is handed a printed form to be filled out with the name and address of the person, and the amount for which the order is desired. Care should be taken to give the full and correct name of the per-

son in whose favor the order is drawn. The postmaster receives and keeps this application, and himself fills out the money order and delivers it to the person desiring to transmit the money. This order should be inclosed in an ordinary letter to the person to whom the money is to be paid. The money order has a receipt attached, which may be torn off along the line of perforation, and which should be retained by the person buying the order. The postmaster where the order is purchased, in the meantime, sends a notice to the postmaster where it is to be paid, giving the names of the parties. This is called the "letter of advice," and it is the authority by which the postmaster pays the order at the office upon which it is drawn. A postmaster will not pay a money order for which he has not received the advice. It is the letter of advice that enables him to determine that the order has been properly issued, and who is entitled to the money. He usually requires the identification of the person presenting the order. A great many money orders are now endorsed, and deposited for collection in the banks, which assume the duties and risks of correct identification and settle their accounts in bulk with the money order division of the post office.

The government is not lawfully liable for the losses resulting from the use of money orders, but the system is surrounded with such safeguards that these losses amount to little or nothing. The number of money orders paid during the year ending June 30, 1900, was 32,467,781, and their amount was \$248,120,285.82. The amount of loss made good by the government was \$69.45. Other losses,—such few as occurred,—were recovered from the post office employees whose carelessness was responsible for their wrongful payment. The amount of a money order lost in the mails can be recovered by the sender or by the payee (the person to whom the money is to be paid) upon application at the issuing office or at the office upon which the order is drawn. A duplicate order is issued by the Post Office Department, free of cost, and without unreasonable delay, where it is desired to transmit the order. The money is returned to the person buying the order when this is preferred.

Persons traveling often buy money orders payable to themselves. This plan has advantages over carrying large amounts in currency, and in recent years has been growing in popularity with traveling men. It is better in some cases than carrying drafts or blank checks, because a money order is more readily negotiable, but in other cases, the drafts or checks are to be preferred. The Post Office Department makes no opposition to this use of the money-order system, and permits orders to be drawn by the same person in his own favor and payable at the office where they are drawn. This makes the money-

order system a sort of bank or savings deposit system of keeping money which is not needed for immediate use. A money order ceases to be valid after one year, but it is payable by a treasury warrant issued by the Post Office Department in Washington, upon being presented for that purpose. Postmasters usually obtain the signature of the buyer of an order upon the advice where the order is payable to the buyer. This aids in comparing the signature and in identifying the person to whom the order is to be paid.

Money orders are issued for the transmission of money to foreign countries under conventions made with most of these countries. They are called "international money orders" and blanks are used which differ slightly from those used for domestic money orders. They can be obtained at most money-order offices.

The other safeguard afforded by the government for the transmission by money applies equally to anything of value to be sent through the mails. It is known as the registry system. The government in this case has no exact information as to the contents of packages which are registered, except so far as it may be necessary to determine their classification as mail matter. Large packages of currency are often sent by banks through the registered mails, the charges for registration being less than the regular charges of the express companies. The registration system is also useful for sending valuable documents, silverware, or any merchandise of value. The fee for registering a letter or package is eight cents, without regard to the size of the package or the amount of postage it may require upon it. Printed matter and merchandise may be sent at the regular rates for such matter, with the payment of the registration fee.

Mail matter may be registered at any post office in the United States. A person desiring to register a letter or package, is required, not only to have the package properly addressed, but to write his name on the back of the envelope or wrapper. It should then be presented at a post office or to a letter-carrier, and the postmaster is informed that it is desired to register the package. A duplicate receipt will be written by the postmaster, or by the clerk in charge of registration, one copy of which will be given to the sender of the package and the other retained in the post office. A person desiring to send a registered letter or package should not undertake to mail it in a letter box, as is sometimes done by affixing the proper postage, or even by dropping pennies into the box. The object of registration is to insure complete responsibility in the passage of the letter or package from one employee to another, and great risk is run by

the neglect of the sender to secure a receipt from the first official who receives the package.

Registration of letters by the regular mail-carriers has recently been authorized in all residence districts, and even in the business districts in some of the smaller cities. The letter-carriers are provided with proper books and receipts for performing the same functions as the postmaster in receiving and receipting for registered matter. Special arrangements are made by the Post Office Department for registration by firms and corporations having large numbers of packages to register. Such establishments are furnished with registration books of their own, by which a considerable part of the clerical work is done by their own employees; the receipts are kept together in the book, instead of being detached. In such cases, the post office officials verify the registration blanks and the packages presented to them.

When a registered letter or package is delivered to the person for whom it is intended, he is asked by the postmaster or letter-carrier to sign a book, acknowledging the receipt of the package, and also to sign a card making the same acknowledgment. The card is returned in the ordinary mail to the sender of the package. A person who fails to receive such a card after a proper interval, should make inquiry as to the fate of the package. It may happen that the package has reached its destination, but that the card has been lost on its return trip. All such inquiries should be addressed to the postmaster at the post office where the package is mailed, and should set forth all the facts regarding the names and addresses of the parties, the time of mailing, and any marks upon the package which might serve to identify the wrapper in case it had been broken or had strayed from its proper destination. Ordinary mail, as well as registered mail, is sometimes lost through carelessness in writing directions. The name of one's own city is often substituted in haste for the place intended, and other similar mistakes are made. Letters misdirected in this manner are often recovered through the skill and perseverance of the postal authorities. In the case of registered letters, a law of 1897 authorizes the government to make losses good to an amount not exceeding \$10, where they cannot be recovered in any other way.

TRUSTS.—Trusts are combinations of capitalists for the purpose of restricting production and increasing the price of manufactures, etc., in which the members of the trusts are interested. Trusts were first introduced by American capitalists, and are in principle similar to syndicates, unions, etc. The operations of trusts in the United States,

where they prevail extensively, were investigated by a committee of the U. S. Senate which issued an adverse report in 1888.

USANCE.—The time allowed by usage for the payment of a bill of exchange; any business custom.

USURY.—Usury now means iniquitous or illegal interest of any kind on money lent. The Mosaic law forbade a Jew to take usury from a fellow-countryman. Greek and Roman moralists mainly disapproved of any usury; the Church Fathers, the Popes, the Canon law absolutely forbade it; hence the Jews had a kind of monopoly of usury at the Reformation. Luther condemned interest, while Calvin allowed it. A long series of laws was passed on the understanding that usury was wrong, but admitting many exceptions, the usury laws thus doing much harm and multiplying legal fictions. The moral question is still debated, and moralists such as Ruskin wax fierce against the taking of interest. But it may broadly be said that modern civilization fully recognizes the admissibility of fair interest.

VALUE OF A TRADE

By CHARLES F. WINGATE

IN THIS industrial age, no field offers such a future for an energetic and intelligent youth as that of mechanics. It is a mistaken idea which leads so many boys to consider it more "genteel" to run errands, sweep out offices, build fires, and copy letters, than to make hats or shoes, lay bricks, wield the saw or jack-plane, handle the machinist's file, or the blacksmith's hammer. A country which has produced such men as Franklin, Robert Fulton, George Steers, Goodyear, Bigelow, the Hoe Brothers, McCormick, Carnegie, Edison, Ericsson, Herreshoff, and Fairbanks should be proud of their achievements and encourage the rising generation to emulate their deeds.

The Talmud says: "He who teaches not his son a trade is to be regarded as if he had taught him how to rob." In ancient times even kings were required to learn trades; Queen Victoria made each of her family learn engraving, painting, or needlework, and so did the late Emperor William. Every boy should be taught to use his hands. "Any one who can learn to write can be taught to draw," says Prof. Walter Smith; and drawing is the basis of manual education.

Carlyle says: "A man is a tool-using animal," and he always spoke with reverence of the bridge which his father, the stone-mason, erected at Cromarthy. Trade-schools have become indispensable. Manual training counteracts the narrowing effect of the subdivision which tends to make a workman a mere machine. General A. Francis Walker says: "Manual training teaches accuracy, thoroughness, and develops character. It trains the eye, the hand, and the brain. There can be no cramming in a trade-school. What we read or hear may be forgotten, but not what we *do*."

A smattering of book-learning may breed conceit, but skill with tools cannot. It is the little knowledge that demoralizes. Professor Sweet says: "The workman is injured by scientific training when he thinks more of what he knows than of how to apply it." Some practical men are prejudiced against trade-schools. Because they got along without such aids, they think the boys of to-day can follow in their footsteps. In his address on "The Artist and the Artisan," Cardinal Wiseman showed how all the great painters and sculptors of the fifteenth century were truly artisans as well as artists. Michelangelo hewed his stupendous creations from the marble; Benvenuto Cellini forged and molded his superb silverwork; Titian alone knew the secret of mixing his match-

less colors; Raphael was a master of brush work. The prejudice against trade-schools formerly existed against law schools. The men who scoff at scientific instruction in a trade do not allow for changed conditions, or understand the difference between teaching a knowledge of scientific or mechanical principles and learning by practice. Most foremen or superintendents have not the time, inclination, or ability, to teach. They have learned to do many things, the processes of which they cannot explain.

A trade-school teaches the rudiments of practice. If it can be attached to the factory, as at Worcester, Mass., where the pupil can enter at once upon practical work, so much the better. At the Baldwin Locomotive Works, in Philadelphia, the pupils from the Spring Garden Institute are placed under a veteran workman. A boy with six months' training ranks as high as one who has had a year's shop practice. In the trade-schools in New York, Brooklyn, Philadelphia, and Chicago, are taught carpentry, bricklaying, plumbing, plastering, metal and sheet cornice-work, stone-cutting, fresco-painting, decorating, and electrical work. Most of the graduates earn good wages. A number are master-mechanics. Many of the pupils have worked in shops and seek to improve themselves in some special line. They make rapid progress because they know just what they want to learn.

The graduates from the English technical schools earn high wages. One young graduate received more than his father and two brothers together.

By the testimony of workmen themselves, increased skill and aptitude come from education, and the superior workman performs his work with less labor than his fellows. Manual skill also breeds self-respect. An English artisan may sit in parliament, but a man servant has no higher ambition than to keep a public house.

Few persons can study alone. They need the stimulus which comes from contact with other students, and also the guidance of a trained teacher. Manual training also needs special appliances and apparatus such as the ordinary shop or factory does not possess. Not every beginner becomes a skilled workman, but no more does every law student become a Marshall or an Evarts, or every clerk become a Stewart or an Astor. Many young mechanics have been benefited by taking the course at some Correspondence School, which has been most helpful in many ways, both to beginners and to older men.

A boy should not be repelled by the drudgery of a trade, or be afraid of soiling his fingers. The doctor, the lawyer, and the clergyman each have to perform disagreeable service, but they do not complain. To dress a wound, visit squalid homes, or defend criminals in court, is not pleasant work, yet it must be done by some one. A youth need not

waste a single hour in mere drudgery in mastering a trade, because he will gain benefit from every experience. Foreign workmen have generally better preparatory training than Americans, but they are less versatile. John Lafarge considers that a first-class American mechanic has no superior.

A boy who means to become a mechanic should not change from one trade to another. The shoemaker must stick to his last. As "Caleb Garth" says in "Middlemarch," "You must be sure of two things: You must love your work, and not always be looking over the edge of it, wanting your play to begin; and the other is: You must not be ashamed of your work and think it would be more honorable for you to be doing something else."

Every young mechanic should take a scientific or trade journal which contains the latest and best ideas about each trade. The isolated artisan in some factory, town, or village, who reads the trade journals, feels himself linked by sympathy and self-interest with his fellow-craftsmen. They supply a vehicle for discussion and for advancing knowledge in every department. That they are so widely read and quoted is a proof of their value.

In choosing a trade a preference should be given to a healthful occupation. Indoor work is not so wholesome as outdoor work. The bricklayer or mason lives longer than the mill hand. The man in the chemical factory is more exposed to disease than the machinist or the carpenter. The plumber has to work about sewers and drains, and must be careful. The cigar maker in the small shop is worse off than if in a factory with large rooms and plenty of windows. Working in constrained positions, as dressmakers, tailors, shoemakers, and others, do, cuts down the average length of life. Blacksmiths are very healthy, as are letter-carriers, whose exercise is the best and most natural that can be taken. Butchers do not live long, being poisoned by the exhalations of the slaughterhouses. Printers are short lived. Persons who work in high temperatures, as, for instance, bakers, cooks, smelters of ores, and operators in many parts of woolen mills, are apt to suffer from ill-health. Lives of miners are less than the average length. Engineers in charge of boilers, who spend most of their time in cellars, are not as a class long-lived.

The commercial world is over crowded and competition cuts down salaries to the lowest point. An ordinary clerk earns less than a first-class mechanic. He is less independent and has not as good prospects. An average clerk does not require special ability, but a mechanic must be intelligent, and, if he is industrious and observing, he improves daily. While machinery has thrown many workmen out of employment, immigration has displaced thousands of clerks. A mechanic with a kit of tools and enough money to hire a basement or a loft may start on his

own account, or he may work at home. If he has energy and friends, he will have little trouble in getting along. More mechanics than clerks own their homes. They get more enjoyment and comfort out of life, and they leave their families better provided for. The mechanic's social position compares favorably with that of the clerk. Even the much abused plumber is now a sanitary engineer, and the tinsmith is a man of standing, while many other callings have gained in dignity and independence.

Through building associations, all over the country, thousands of wage earners escape paying rent and are sure of a roof over their heads. Like Longfellow's "Village Blacksmith," "they look the whole world in the face, for they owe not any man." If a mechanic has any business faculty, he may start a shop for himself. Most of the heads of manufacturing, and the majority of builders and contractors of the United States, have risen from the ranks. Mr. Carnegie's thirty partners in the steel industry began at the bottom of the ladder and won promotion by merit. There is an unlimited demand for capable foremen and superintendents in industrial establishments; men who are fitted for such positions usually find them.

Governor Pingree, of Michigan, began life cutting leather soles ten hours a day for four dollars a week. Judge W. McHugh, of the United States District Court of Nebraska, was a cobbler, and Judge Charles Daniels, of Buffalo, was a shoemaker in early life. Admiral Sampson was the son of a farm laborer, and his early life was full of hardship. Ezra Cornell, the founder of Cornell University, was the son of a New Jersey Quaker, and in his youth followed the pottery trade. Austin Corbin was a farmer's son, brought up to toil. He earned enough to pay for his own education, started in business in a small way, worked hard, and reaped the reward. The present Archbishop of Canterbury was left fatherless at the age of thirteen, and had to earn his own living at seventeen. He learned to plow as straight a furrow and to thresh as well as any man in the parish.

To conclude, the man who makes something always has an advantage over the dealer who buys and sells, or the professional man who gives advice. People must have clothes, shoes, furniture, and houses, and the services of the artisan will always be in demand. The field of invention offers boundless opportunities for the ingenious. New lands are being opened up and new industries developed. Therefore, the skilled hand-workmen need have no fear of not finding steady and profitable employment. At present the most prominent field in mechanics is electricity, but the whole industrial world is open to young men of capacity and character.

VENDEE.—One to whom something is sold.

VENDOR.—A seller.

VOID.—That which is of no legal effect.

WAGES EASILY CALCULATED—On a Basis of Ten Hours' Labor per Day.

HOURS.	\$1.00	\$1.50	\$2.00	\$2.50	\$3.00	\$3.50	\$4.00	\$4.50	\$5 00	\$5.50	\$6.00	\$6.50	\$7.00	\$7.50	\$8 00	\$9.00	\$ 10	\$ 11	\$ 12
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1	.01 $\frac{3}{4}$.02 $\frac{1}{4}$.03 $\frac{1}{4}$.04 $\frac{1}{4}$.05	.06	.06 $\frac{3}{4}$.07 $\frac{1}{2}$.08 $\frac{1}{4}$.09 $\frac{1}{4}$.10	.11	.11 $\frac{3}{4}$.12 $\frac{1}{2}$.13 $\frac{1}{4}$.15	.16 $\frac{3}{4}$.18 $\frac{1}{4}$.20
2	.03 $\frac{1}{4}$.05	.06 $\frac{3}{4}$.08 $\frac{1}{4}$.10	.11 $\frac{3}{4}$.13 $\frac{1}{4}$.15	.16 $\frac{3}{4}$.18 $\frac{1}{4}$.20	.21 $\frac{3}{4}$.23 $\frac{1}{4}$.25	.26 $\frac{3}{4}$.30	.33 $\frac{1}{4}$.36 $\frac{3}{4}$.40
3	.05	.07 $\frac{1}{4}$.10	.12 $\frac{1}{4}$.15	.17 $\frac{1}{4}$.20	.22 $\frac{1}{4}$.25	.27 $\frac{1}{4}$.30	.32 $\frac{1}{4}$.35	.37 $\frac{1}{4}$.40	.45	.50	.55	.60
4	.06 $\frac{3}{4}$.10	.13 $\frac{1}{4}$.16 $\frac{3}{4}$.20	.23 $\frac{1}{4}$.26 $\frac{3}{4}$.30	.33 $\frac{1}{4}$.36 $\frac{3}{4}$.40	.43 $\frac{1}{4}$.46 $\frac{3}{4}$.50	.53 $\frac{1}{4}$.60	.66 $\frac{3}{4}$.76 $\frac{1}{4}$.80
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DAYS.																			
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2	.33 $\frac{1}{4}$.50	.66 $\frac{3}{4}$.83 $\frac{1}{4}$	1.00	1.16 $\frac{3}{4}$	1.33 $\frac{1}{4}$	1.50	1.66 $\frac{3}{4}$	1.83 $\frac{1}{4}$	2.00	2.16 $\frac{3}{4}$	2.33 $\frac{1}{4}$	2.50	2.66 $\frac{3}{4}$	3.00	3.33 $\frac{1}{4}$	3.66 $\frac{3}{4}$	4.00
3	.50	.75	1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.50	5.00	5.50	6.00
4	.66 $\frac{3}{4}$	1.00	1.33 $\frac{1}{4}$	1.66 $\frac{3}{4}$	2.00	2.33 $\frac{1}{4}$	2.66 $\frac{3}{4}$	3.00	3.33 $\frac{1}{4}$	3.66 $\frac{3}{4}$	4.00	4.33 $\frac{1}{4}$	4.66 $\frac{3}{4}$	5.00	5.33 $\frac{1}{4}$	6.00	6.66 $\frac{3}{4}$	7.33 $\frac{1}{4}$	8.00
5	.83 $\frac{1}{4}$	1.25	1.66 $\frac{3}{4}$	2.08 $\frac{1}{4}$	2.50	2.91 $\frac{3}{4}$	3.33 $\frac{1}{4}$	3.75	4.16 $\frac{3}{4}$	4.58 $\frac{1}{4}$	5.00	5.41 $\frac{3}{4}$	5.83 $\frac{1}{4}$	6.25	6.66 $\frac{3}{4}$	7.50	8.33 $\frac{1}{4}$	9.16 $\frac{3}{4}$	10.00
6	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50	7.00	7.50	8.00	9.00	10.00	11.90	12.00

To find wages at \$13, \$14, \$15, \$16, or more, per week, find the amount at \$6.50, \$7, \$7.50, \$8, etc., and multiply by 2.

WHAT SHALL I DO?

By ORISON SWETT MARDEN

THE hen, with all her clucking, cannot keep the duckling from the water, nor the eaglet from the air.

—LYMAN ABBOTT.

To BUSINESS that we love, we rise betimes,
And go to it with delight.

—SHAKESPEARE.

THE high prize of life, the crowning fortune of a man, is to be born with a bias to some pursuit, which finds him in employment and happiness.

—EMERSON.

WHAT can I do best? In what capacity can I best serve my fellow-man, and develop to the utmost my own highest powers? These are the searching questions that confront each young man and woman on the threshold of life. The answer not only involves the welfare or misery of the individual, but directly affects the progress of the world, for civilization can only reach high-water mark when each man and woman has chosen his or her proper work.

While it is true that—

“There’s a divinity that shapes our ends,
Rough-hew them how we will,”—

our whole happiness and the sum of our usefulness to society depend upon our discovering early in life to what end that divinity is shaping us. If we work with it, our lives will fulfill the purpose of our being; we shall contribute to the world’s work our full quota of the best that we can give. Whether we do great things or small, whether we win fame or wealth, or remain unnoticed in some humble niche to which nature has assigned us, no vicissitudes of fate or fortune can rob us of the joy of living a complete life, no one can take from us the satisfaction of knowing that we have honorably acquitted ourselves in the only sphere we could adequately fill. If we work, consciously or unconsciously, in opposition to it, we grope in darkness throughout our lives.

Mozart, when but four years old, played the clavichord, and composed minuets and other pieces. At the same age, Charles Kingsley preached his first sermon, to a congregation of chairs.



To the youth whose talent or genius is so marked that he can hardly make a mistake in choosing, the question presents no difficulties, but, unfortunately, most of us, in the formative period of life, show no strong indication of what we can best do. Still, even those who have no special bent, as a rule possess certain traits and tendencies which, if carefully fostered, will assist in finding their right places in the world. The time will come when there will be institutions for determining the natural bent of the boy and girl; where men of large experience and close observation will study the natural inclination of the youth, help him to find where his greatest strength lies, and how to use it to the best advantage. Even if we take for granted, what is not true, that every youth will sooner or later discover the line of his greatest strength, the discovery is often made so late in life that great success is practically impossible. Such institutions would help boys and girls to start in their proper careers early in life; and an early choice shortens the way. Can anything be more important to human beings than a beginning in life in the right direction, where even small effort will count for more in the race than the greatest effort—and a life of drudgery—in the wrong direction?

It is unfortunate that the majority of parents, whose power to make or mar the child's future is incalculable, have no conception of the responsibility resting upon them in shaping and guiding the lives of their boys and girls. Every year the prospects of thousands of young people are ruined through the ignorance or injudicious supervision of fathers and mothers who love them better than their own lives.

"If the father is A and the mother is B," says Henry Ward Beecher, "the child is not necessarily AB; and yet parents think it must be so. There is a whole generation behind father and mother; and they are nothing, often, but a lens that catches the scattered rays of light, and brings them to a focus."

The career of Laurens Alma-Tadema came near being ruined by the mother who idolized him. In obedience to her wishes, he tried to prepare himself for the profession of the law, but the struggle between the youth's inborn passion for art and his anxiety to do what he believed his duty toward his widowed parent undermined his health.

"His strength gave way completely, and the doctors who attended him gave it as their verdict that his days were numbered. Anxious that his few remaining months of life should be as happy as possible, his mother's resolution at length gave way, and young Tadema was given his heart's desire." The fierce struggle over, he soon regained his health; and, following his natural bent, he became one of our greatest modern painters.

Ignorant parents compelled the boy Arkwright to become a barber's apprentice, but nature had locked up in his brain a cunning device des-

tined to bless humanity, and do the drudgery of millions of England's poor; so he must needs say "hands off" even to his parents, as Christ said to His mother: "Wist ye not that I must be about my Father's business?"

Schiller was sent to study surgery in the military school at Stuttgart, but, in secret, he produced his first great play, "The Robbers." The irksomeness of his prison-like school so galled him, and his longing for authorship so allured him, that he ventured penniless into the inhospitable world of letters, where he soon made himself an immortal name.

The father of Ole Bull would have smothered the boy's genius to make him an unsuccessful minister, as Dr. Händel would have quenched the aspirations of his son to make him a poor lawyer.

It is astonishing, considering the fact that so large a portion of the human race is wrecked by misfit occupations, that parents should continue to consider their own preferences and interests in helping a boy or girl to choose a career, rather than the child's fitness. Instead of thwarting the development of pronounced natural gifts of their children, they should make it a special aim to discover, if possible, their real bent. The question the parent should ask is not "What do I wish my child to do?" but "What is he best fitted for? What indications has nature given in his mental and physical make-up as to the calling he should follow?"

One of the most unfortunate phases of the question of parents choosing callings for their children is that, the more dutiful the boy or girl, the finer the nature, the more likely they are not to assert themselves, but to acquiesce quietly in the desire of the parents. Some of the saddest tragedies in human life have been enacted by reason of parents compelling their children to go contrary to nature's bidding. There are few more pathetic stories than that of Thomas Edwards, the born naturalist, who might have been, perhaps, greater than Agassiz, had not the ignorance and stupidity of both parents and teachers crippled and dwarfed his life. Condemned as he was to a cobbler's bench, he yet succeeded in collecting and classifying an incredible number of valuable specimens.

"I felt that I was in the world to do something," said Whittier, "and thought I must." You are in the world to do something, and the time has now come for you to discover what that something is. If you are not among the fortunate ones whose callings have chosen them, you must think and "study yourself, and, most of all, note well wherein nature meant you to excel."

"Many young persons," says Robert Waters, "are in an uncertain state of mind as to the nature and extent of their natural abilities, and on this account find it difficult to fix upon the profession or calling which

they are to follow for life. This feeling is by no means unnatural; it is the struggle of youth toward manhood and maturity. Only prodigies know from the start what they are best able to do. The mental powers of every young person are in constant process of development, and it is only after a certain stage of this development that one can plainly see wherein his strength lies. Sometimes a man tries two or three professions before he finds the proper one, or the career for which he is best fitted. This happens not only with men of ordinary, but with men of extraordinary, ability."

As a rule, what one likes best to do, is apt to be his forte. Shakespeare was right when he said: —

"No profit flows where is no pleasure ta'en;
In brief, sir, study what you most affect."

Study yourself carefully, your tastes and temperament. Retire to the inner chamber of your soul, shut out all thoughts of what others may have urged upon you, the suggestions of overfond or ambitious parents, of admiring classmates, of well-meaning, but, it may be, mistaken friends, that you may become, if you will, a great teacher, clergyman, orator, physician, architect, or engineer. Ask yourself whether your thoughts incline strongly to any of the suggested callings. If they do, let your next question be: "Has nature given me any of the qualifications necessary for success in such a career? Can I persevere to the end, in spite of hard work, difficulties, and disappointments, in preparing myself to fulfil adequately the duties of this position?" Do you long to find yourself amid the bustle and hum of a great city? Have you a faculty for buying and selling, with commercial instincts and tendencies? Or do you incline to the tranquil life of the country? Are you happy on the farm? Do you like to handle mechanics' tools, to plane, and saw, and drill? Have you some skill in drawing? Do you like to collect and examine insects of all kinds? Do you like to solve problems in arithmetic and geometry, or do you prefer to memorize and declaim favorite poems or speeches? Do you like to impart to others the information you have acquired by reading or study, and are you successful in doing so?

These are only a few of the questions you must ask yourself in trying to determine what nature intended you for. Look over all the occupations and professions you know of, and ask yourself if nature has given you qualifications which, if developed, would make you successful in any of them.

It is not for you to ask whether you have the ability of a Webster or a Lincoln, but the great question for you to settle is, "What position am I fitted for?" and you should lose no time in getting into that position.

In choosing an occupation, do not ask yourself how you can make the most money or gain the most notoriety, but choose that work which will call out all your powers and develop your manhood into the greatest strength and symmetry. Not money, not notoriety, not fame even, but power, is what you want. Manhood is greater than wealth, grander than fame. Character is greater than any career. Each faculty must be educated, and any deficiency in its training will appear in whatever you do. The hand must be educated to be graceful, steady, and strong. The eye must be educated to be alert, discriminating, and microscopic. The heart must be educated to be tender, sympathetic, and true. The memory must be drilled for years in accuracy, retention, and comprehensiveness. The world does not demand that you be a lawyer, minister, doctor, farmer, scientist, or merchant. It does not dictate what you shall do, but it does require that you be a master in whatever you undertake. If you are a master in your line, the world will applaud you and all doors will fly open to you. But the world condemns all botches, abortions, and failures. It is a significant fact that many of the Paris cabmen are either unsuccessful students in theology and other professions, or disfrosted priests. They are very bad cabmen.

No man can be highly successful, or of great value to the world, until he finds his place. Like a locomotive, he is strong on the track, but weak in any other place. "Like a boat on a river," says Emerson, "every boy runs against obstructions on every side but one. On that side all obstructions are taken away, and he sweeps serenely over a deepening channel into an infinite sea."

To those who fear that they are handicapped by inherited traits or environment, I would suggest the memorizing and frequent repetition of Ella Wheeler Wilcox's soul-stirring lines:—

"I care not who were vicious back of me,
No shadow of their sins on me is shed.
My will is greater than heredity;
I am no worm to feed upon the dead.
"My face, my form, my gestures, and my voice
May be reflections from a race that was;
But this I know, and, knowing it, rejoice:
I am, myself, a part of the Great Cause.
"I am a spirit! Spirit would suffice,
If rightly used, to set a chained world free.
Am I not stronger than a mortal vice
That crawls the length of some ancestral tree?"

Constant growth toward perfection should be the goal of all our efforts. In choosing your life-work, it is of the utmost importance that this end be kept in view.

Before deciding on your vocation, study the men and women engaged in the work you think of adopting. Does it elevate those who follow it? Are they broad, liberal, intelligent? Or have they become mere appendages of their profession, living in a rut, with little standing in the community. Don't think you will be the great exception, and can enter a questionable vocation without becoming a creature of it. In spite of all your determination and will power to the contrary, your occupation, from the very law of association and habit, will seize you as in a vise, will mold you, shape you, fashion you, and stamp its inevitable impress upon you.

Select a clean, useful, honorable occupation. If there is any doubt on this point, abandon it at once, for familiarity with bad business will make it seem good. Choose a business that has expansiveness in it. Some kinds of business a Gould could not make successful, nor a Peabody respectable. Choose an occupation which will develop you, elevate you, and give you a chance for self-improvement and promotion. Many a man has dwarfed his manhood, cramped his intellect, crushed his aspiration, blunted his finer sensibilities, in some mean, narrow occupation, just because there was money in it.

At one period of his career, Faraday had to choose definitely between wealth and science as the object of his life. The result of his choice is thus summed up by Professor Tyndall in his memoir of the great scientist: "Taking the duration of his life into account, this son of a blacksmith, and apprentice to a bookbinder, had to decide between a fortune of 150,000 pounds sterling on the one side, and his unendowed science on the other. He chose the latter, and died a poor man. But his was the glory of holding aloft among the nations the scientific name of England for a period of forty years."

"No business that is evil in its nature and influence," says a writer, "can be a man's true calling. No one can afford to follow an occupation of which he is, with reason, ashamed. True dignity, pleasure, and peace are utterly impossible to him who voluntarily engages in labor that debases himself and others, or a work that tends directly to poison human enjoyment and to destroy the welfare and usefulness of his fellow-men; hence, whatever is hurtful and corrupting is to be shunned as a deadly plague. Money and flattery and luxury and honor may seem, for a time, to compensate for the evils occasioned and the injuries inflicted by a disreputable and degrading occupation, but soon or late specious delusion will be dispelled, the baneful consequences will appear, and the days and nights of self-reproach and bitter remorse will come."

One of the most important considerations in the choice of a calling is its effect upon health. Success and the highest efficiency in any vocation depend almost equally on a sound mind and a healthy body. It is imperative, therefore, in choosing a career, that you study your physical

make-up and tendencies, as carefully as you do your mental qualities and inclinations. There are many boys, for instance, who are well qualified mentally and by natural bent for the life of a physician, but who are rendered thoroughly unfit for it by their lack of staying qualities or physical endurance. They could not stand the strain for a single year, and it would be suicidal for them to enter that profession. A girl might be admirably adapted, both mentally and by training, for the office of a teacher, and yet, because of a nervous, excitable temperament, be effectually barred out from a position in which patience and absolute self-control are essential.

People who have weak or defective sight should be very careful about entering occupations such as bookkeeping, engraving, dressmaking, proof-reading, or others that require close and constant use of the eyes. Many young men and women who would be well and happy, perhaps, on the farm they despised, or in some active outdoor work, have ruined health and happiness behind a counter in the city, or in some sedentary occupation against which Nature—wiser than they—had entered her protest. Those with delicate lungs should not engage in callings in which they are compelled to inhale dust of stones or iron, as in the grinding of cutlery and tools. They should not work in grain elevators, or in any position in which they are compelled to inhale dust which irritates the delicate lining of the lung cells. A man of an extremely nervous or irritable temperament should not engage in an occupation which would tend to aggravate that weakness. He should not put himself in a position where the rasping and tearing down process would have power to wreck his nervous system. Harmony increases the life-force, but discord impairs it; all discord tends not only to shorten life, but also to impair one's efficiency. Get into harmony, whatever you do; do not allow yourself to work in discordant environment if you can possibly avoid it.

Geikie says: "You may win in one way, and lose in another. You may buy gold too dear; if you give health for it, you make a poor bargain. If you sell your freedom for it, you give pearls for a bauble. If you give your soul for it,—your self-respect, your peace, your manhood, your character,—you pay too much for it."

"How did you find your place?" asked a friend of George Peabody. "I didn't find it," was the reply; "the place found me." The average boy and girl are like the famous banker in this respect. Their places find them. Most of us do not choose our vocations. Accident, chance, environment, location of birthplace, poverty, lack of early opportunities or education, generally have more to do with our position in life than free choice. Apparent trifles often change an entire destiny. An accidental glance at a book, a single lecture, a sermon, or a chance remark,

a little encouragement, or some sudden emergency, has in many instances been the determining factor in a life.

"Most men," says Réal, "are like plants. They possess properties which chance discovers." Many men have not been conscious even of their own ability or genius until some fortunate circumstance helped them to discover themselves. Some time ago, a New York paper published an account of the careers of six successful theatrical managers who came to their occupation by mere accident. Lord Erskine, the great English advocate, spent some years in the navy; but, being dissatisfied with that profession, he entered the army. One day, his regiment happened to be quartered in a town where court was held. He sauntered into the court-house while court was in session, and, much to his surprise, was invited to a seat on the bench by the presiding judge, who chanced to recognize him. The young soldier was so stirred by what he considered the commonplace pleadings of the lawyers that he made up his mind that he could do as well as that himself, and immediately began the study of law, which resulted in his becoming one of the greatest forensic orators the world ever knew.

Large numbers of people are as unconscious of their strong points as they are of their weak ones. A man or a woman may be born with a strong talent or genius for some special line, and yet be utterly unconscious of it. A. T. Stewart was educated for the ministry, and an idea which an old uncle had instilled into his mind, that a call is necessary to success in life, clung to him so tenaciously that he became almost discouraged because he could not hear this call. He tried school-teaching, but was not satisfied, and might never have found his real calling had he not loaned to a friend who was anxious to start in business the sum of seventy dollars, the accumulation of his savings. The young business man did not succeed in his venture, and, not having the money to pay Stewart the loan which he had so kindly advanced, he begged him to take, in its stead, the little shop, the only means of payment in his possession. Stewart took the unpretentious store, and became a merchant prince.

Wilson, the famous ornithologist, failed in five professions before he found his proper place. Barnum tried fourteen occupations before he ascertained that he was a born showman. Josh Billings failed as a farmer and auctioneer, but found himself as much at home in comic literature as a fish in water. Phillips Brooks failed as a teacher in the Boston Latin School.

Grant, the tanner, who failed at Galena, and Grant, the soldier, who won some of the greatest battles of the world, would seem like two widely different men if his story were not so familiar.

Garfield would not have become President if he had not previously been a zealous teacher, a responsible soldier, a conscientious statesman.

Neither Lincoln nor Grant started as a baby with a precocity for the White House, or an irresistible genius for ruling men. So no one should be disappointed because he was not endowed in the cradle with great gifts. His business is to do the best he can, wherever his lot may be cast, and to advance at every honorable opportunity in the direction toward which the inward monitor points. Let duty be the guiding-star, and success will surely be the crown, to the full measure of one's ability and industry.

We must not jump to the conclusion that because a man has not succeeded in what he has really tried with all his might to do, he cannot succeed at anything. Look at a fish floundering on the sand as though he would tear himself to pieces. But look again; a huge wave breaks higher up the beach, and covers the unfortunate creature. The moment his fins feel the water, he is himself again, and darts like a flash through the waves. His fins mean something now, while before they beat the air and earth in vain, a hindrance instead of a help.

If you fail after doing your best, examine the work attempted, and see if it really be in the line of your bent or power of achievement. Goldsmith found himself totally unfit for the duties of a physician; but who else could have written the "Vicar of Wakefield" or the "Deserted Village"? Cowper failed as a lawyer. He was so timid that he could not plead a case, but he wrote some of our finest poems. Molière found that he was not adapted to the work of a lawyer, but he left a great name in literature. Voltaire and Petrarch abandoned the law, the former choosing philosophy, the latter, poetry. Cromwell was a farmer until forty years old.

It is a mistake to suppose that a special call or talent to do a particular thing always manifests itself in youth. Some people mature at a much later period than others. Many men and women do not find their true vocations until middle life. But their intermediate experiences, in most instances, prove valuable when they have found their real work.

After carefully studying yourself, your mental and physical capacities, your disposition, ability, and preferences, and deliberately choosing your life-work, never look back, nor compare it with something else you might have done. Unless experience convinces you that you have made a mistake, and you feel reasonably certain that you are better fitted to succeed in some other calling, abide by your choice. Throw yourself, heart and soul, into your work. Let nothing swerve you from your aim. Do not let the difficulties which appear in every vocation, or temporary despondency or disappointment, shake your purpose. You will never succeed while smarting under the drudgery of your occupation, if you are constantly haunted with the idea that you could succeed better in something else. Great tenacity of purpose is the only thing that will

carry you over the hard places to ultimate triumph. This determination, or fixity of purpose, has a great moral bearing upon our success, for it leads others to feel confidence in us; and this is everything. It gives credit and moral support in a thousand ways. People always believe in a man with a fixed purpose, and will help him twice as quickly as one who is loosely or indifferently attached to his vocation, and liable at any time to make a change, or to fail. Everybody knows that determined men are not likely to fail. They carry in their very pluck, grit, and determination, the conviction and assurance of success.

"Do that which is assigned you," says Emerson, "and you cannot hope too much or dare too much. There is at this moment for you an utterance brave and grand as that of the colossal chisel of Phidias or trowel of the Egyptians, or the pen of Moses or Dante, but different from all these." When you find that which has been assigned you, you will know it. Your whole being will respond to its quickening influence. You will encounter obstacles you perhaps never dreamed of; you will have hours of anxiety and discouragement, but, in the main, you will feel that you have found your mission.

When a man has found his place, he is happy in it,—joyful, cheerful, energetic. The days are all too short for him. He is happy because all his powers find exercise in perfect harmony. There is no such thing to him as compromising his faculties, no cramping of legal acumen on the farm, no suppressing of oratorical powers at the anvil, no stifling of the exuberance of physical strength at the study desk, no writing sermons to put a congregation to sleep.

The earlier a young man or woman can decide upon his or her life-work, the better; but there should be no undue haste. Where there is no decided natural bent, the greatest patience and care should be exercised in finding out wherein one is strongest. Too many young people are led to make a wrong choice by a misapplication of the motto: "Where there's a will, there's a way." There never was a greater fallacy than that a man can be anything he wills to be. "Be what nature intended you for," says Sydney Smith, "and you will succeed; be anything else, and you will be ten thousand times worse than nothing." A man cannot make himself into anything he pleases. If he attempts to work contrary to nature, the result will be a botch.

When Leland Stanford was a boy, his father told him that he could have all the timber on his land. The lad contracted with the railroad to buy it, hired wood-choppers, and cleared twenty-five hundred dollars by the bargain. His instincts were for business; but he ignored all this, studied law, and settled in a lonely part of Wisconsin. He had not the slightest adaptability for law. Fortunately he was burned out, lost everything, and returned to his brothers in California. He then

returned to a business life, his early choice, and laid the foundation of his immense fortune and benefactions.

A young broom-maker thought that he had a call to be a preacher, and applied to his Presbytery for a license, which, after an official examination, it was thought best to refuse. The decision was made known to the candidate by the oldest minister, who said with great deliberation: "My young friend, the Lord requires every man to glorify Him in some particular calling, some in one and some in another, according to the talents He hath committed unto them; and the Presbytery are of the opinion that the Lord desires that you should glorify Him by making brooms."

Better adorn your own than seek another's place. Aim high, by all means, as high as your powers will permit, but do not aim at what you are wholly unfit for. Better be the Napoleon of bootblacks, or the Alexander of chimney-sweepers, let us say with Matthew Arnold, than a shallow-brained attorney who, like necessity, knows no law.

"I remember," says a recent writer, "a girl talking to a man of international reputation about her work in life. It was journalism. She spoke of its hardships, its small recompense, at first; its lack of repose. He listened to her most gravely, and then said: 'My friend, are you in the right groove?' The question startled the girl, who had never thought of applying natural law to her selection of a profession by finding out first if she was built for that groove. I met her a year afterward, and she said, with a beaming face: 'I have found my groove.'"

"It is a great thing,—this finding one's groove in anything in life! It is quite worth the while to give it consideration and thought. It makes as much difference in life as it does in mechanics; it is hard to run a four-inch slide in a three-inch groove!"

"Our wishes," Geikie says, "are presentiments of our capabilities." This is true only in a limited sense. I know men who are trying to paint landscapes on canvas, whose souls have never caught the divine sense of beauty. Others, again, are wasting their lives in a vain effort to be writers or musicians, while they have not the slightest natural ability for such vocations. In straining after a great career, trying to reach some lofty niche or pedestal for which nature never intended them, many people lose all the sweetness and joy of living.

Do not mistake a shallow, selfish ambition, a desire "to be somebody" in the world, for an aptitude for any particular calling. Do not mistake some temporary enthusiasm for a call. Many a youth has been turned in the wrong direction, and has become a failure, or only a partial success, through having his imagination roused by reading some book, or by the enthusiasm of some optimistic lecturer, to try to do the very opposite of what he should have undertaken.

"The ignorance of men who know not for what time and to what thing they be fit," said Roger Ascham, "causeth some to wish themselves rich for whom it were better a great deal to be poor; some to desire to be in the court, which be born and be fitter rather for the cart; some to be masters and rule others, who never yet began to rule themselves; some to teach, which rather should learn; some to be priests, which were fitter to be clerks."

Half the world seems to have found uncongenial occupation, as if the human race had been shaken up together and had exchanged places in the operation. A servant girl is trying to teach, and a natural teacher is tending store. Good farmers are murdering the law, while Choates and Websters are ruining farms, each tortured by the consciousness of unfulfilled destiny. Boys are pining in factories who should be wrestling with Greek and Latin, and hundreds are chafing beneath unnatural loads in college who should be on the farm or before the mast. "Artists" are spreading "daubs" on canvas who should be whitewashing board fences. Behind counters stand clerks who hate the yardstick, and neglect their work to dream of other occupations. A good shoemaker writes a few verses for the village paper; his friends call him a poet, and the last, with which he is familiar, is abandoned for the pen which he uses awkwardly. Other shoemakers are cobbling in Congress, while statesmen are pounding shoe lasts. Laymen are murdering sermons, while Beechers and Whitefields are failing as merchants, and people are wondering what can be the cause of empty pews. A boy who is always making something with tools is railroaded through the university and started on the road to inferiority in one of the three honorable professions. Real surgeons are handling the meat-saw and cleaver, while butchers are amputating human limbs.

Criminals, suicides, most of the unfortunates in life, come from the classes who have never found their places. A man in his place rarely commits crime. When he has found his orbit, he feels satisfied in it; he feels that all his powers are pulling; his purpose is tugging away at all his faculties. He does not feel humiliated because he is a farmer or a blacksmith or a school-teacher. He does not apologize because he is not this or that; he has found his place, and is satisfied. He may not have the ability of a Washington or a Gladstone, but that does not humiliate him; he feels that he is a man, a whole man, and the consciousness of fulfilling his natural destiny makes him a power.

A caged eagle is conscious of inferiority, of loss of power. He knows that his wings were intended for soaring, and feels a perpetual humiliation while imprisoned. But open the cage and let his proud wings feel the air once more, and he will mount and mount until he becomes but a speck between the earth and the sun. So caged minds never feel their

power until they are free, until their wings touch the air, when they soar toward their natural goal.

Make it the business of the first part of your life to find your forte, and, when you have found it, verily you need ask no other blessedness.

Whatever you do in life, be greater than your calling. Most people look upon an occupation or calling as a mere expedient for earning a living. What a mean, narrow view to take of what was intended for the great school of life, the great man developer, the character-builder; that which should broaden, deepen, heighten, and round out into symmetry, harmony, and beauty, all the God-given faculties within us!

THE only direction in which we can safely move is FORWARD.

— C. B. NEWCOMB.

HAS MACHINERY EMANCIPATED MAN FROM DRUDGERY?

By THE HON. CARROLL D. WRIGHT

United States Commissioner of Labor

THE question: "Has machinery emancipated man from drudgery?" cannot be answered with a direct affirmative or negative. If put in the more moderate form: "Has machinery diminished the drudgery of the human race?" it may be answered strongly in the affirmative.

Machinery has absolutely done away with many forms of painful, tedious, and unhealthy labor. It has also greatly reduced the number of men required to produce a given result. Even if it were admitted that those still employed in tending machinery were subjected to drudgery as severe and degrading as the lowest forms of manual labor, it would still be true that through their sacrifice many thousands of their fellows had purchased immunity from this thankless labor. Machine production has greatly increased the



efficiency of the human race, and, by enabling a few men to do what once required many, has released the many for higher employments and for the multiplication of comforts and luxuries for the human race.

I do not believe that labor on machines has added to the drudgery of the human race, or degraded labor. The question whether machine labor is degrading to the mind and the man, has often been answered in the affirmative, even by writers who have admitted the necessity and value of machinery. It is said that in making small parts of large machines, and in making small articles, there is a dwarfing of the intellectual faculties which is not experienced in making entire articles with their varied parts. This might be true if the man who has been making whole things is set to work upon small parts. The fact is, however, that the man who makes the small parts, or the small articles, and is thus subjected to what is called the "terrible monotony of machine occupation," is not usually the man who is capable of making whole things, but is a man who has been promoted by machinery from some still more monotonous calling.

The use of machinery compels sobriety on the part of the operative. There has been no more powerful or effective temperance worker than the machine. The testimony in this direction is conclusive and gratifying. A man with an addled brain has no business in the presence of machinery, for his life and limb would be endangered. The employer, looking at the question from even a selfish point of view, is of necessity compelled to engage men who come to their employment with clear heads. In this respect, machinery does not degrade labor, but elevates it.

But, has machinery degraded labor by diminishing the opportunities for employment, and so increasing among laborers the competition for work? Quite the contrary. The greatest increase in the employment of people at advanced wages is found in those industries where the highest types of machines have been introduced. Machines not only create new demands in old lines, but also create occupations that never existed before their introduction. Thousands of people are now employed in telegraphy. Not a single individual has been displaced, because the occupation did not exist before the use of electricity. Thousands more find remunerative employment in the construction of telegraph lines, the manufacture of instruments, and the care of the wires. The telephone has added another similar field of employment, while the whole list of electrical appliances has provided for the employment of armies of skilled workers, without trenching upon the former employments. Electroplating, as a subdivision of the use of electricity, has brought remunerative and congenial employment to thousands of people.

If we look at the introduction of railways, the same general results may be noted. The railroads of the United States employ in their opera-

tion more than a million people. When we consider the construction of road-beds, or rolling stock, and all the necessary equipment for convenient and commodious travel, it is apparent that new occupations have been offered to vast numbers of wage-receivers. When the electric line was opened between Minneapolis and St. Paul, a few years ago, by which people could have a service every few minutes between the two cities, complaint was made that it had practically thrown out of employment the brakemen and other hands employed on the steam-railway. On inquiry, it appeared that under the old steam-road régime the trains were not very frequent between the two cities, and that only six or eight people were practically injured by the new order of things, while sixty-five men were required to run the electric cars which had displaced the former trains.

Indeed, rapid transit in our great cities has been instrumental in bringing a vast number of well-informed men into active employment. An inferior man cannot run an electric car; he must have sufficient intelligence to understand the methods necessary for the propulsion, stopping, and guiding of the cars. From the standpoint of an intelligent being, he is vastly superior to the man required to drive the horses of an ordinary street-car. The displacement of the stage-coach and the stage-driver was nothing compared to the expansion of labor which the railroad systems of the country have created. All this work of the railroads has not, in all probability, displaced a single coachman; on the other hand, it has created the demand for drivers and workers with horses and wagons through the great expansion of the express business, of cab-driving, of connecting lines, and in other ways, which could never have been realized under the old order of travel.

When the sewing-machine was invented, it was generally believed that the sewing girl's day was over. In a certain respect it was. But she now earns more money, with less physical exhaustion, than under the old system. Abominably scanty as are the results of her efforts now, they are far superior to what they would have been without this invention. As an illustration of the expansion of labor through machinery, the sewing-machine is a striking instance. It has displaced no one; it has increased demand, and it has been the means of establishing great workshops to supply the thousands of machines sold in every civilized part of the world.

Another invention which aroused agitation and contention in labor circles is the linotype machine. Fortunately for society, the compositors are an intelligent body of men. Their work is regulated by the Typographical Union. When the linotype machine was first operated successfully, the compositors felt some apprehension that their occupation would be seriously injured, and many men be permanently thrown out of

employment. Many men were thrown out of employment, but the testimony of officers of the Typographical Union, publishers, and newspaper managers, is that at the present time there are, in all probability, as many men employed in setting type, either by the old methods or by the new, as before the linotype was introduced. The conclusion is reasonable that a few years will see a large relative increase in compositors. The great demand for reading-matter of all grades necessitated the introduction of new methods which would greatly reduce the cost of producing it. The managers of every political campaign depend now upon distributing vast quantities of reading-matter. The committees of the two great political parties, during the presidential campaign of 1896, sent out nearly two hundred million copies of documents. The orator still has a part to play, but the printing-press does the work of setting men to thinking, to decide intelligently how they shall give their votes.

The dissemination of knowledge means the expansion of all printing devices or methods by which the knowledge can be carried to the individual. The farmers and mechanics of our country are readers of daily papers, literary magazines, reviews, and art journals, and the supply of all this matter at low cost is a necessity which can be met only by machinery. One magazine has reached the enormous circulation of nearly nine hundred thousand copies per month. Under the old methods, this would have been a physical impossibility. The present editions of some of the great dailies could never be reached without the employment of the power-press, whose capacity seems to have no bounds. The latest capacity of the modern printing-press is ninety-six thousand eight-page papers in one hour. To do the presswork alone for this number of papers would take, on the old plan, a man and a boy, working ten hours a day, one hundred and forty days.

So, for every fact which can be brought forward to show that machines have deprived men of labor, another fact can be set against it which will prove that more men have been supplied with labor than have been deprived of it. Every impartial investigation of the subject shows this beyond dispute.

To turn again to the direct effect of machine labor upon the laborer, there is much to be said in favor of the moral benefits of the new system. Under the old hand-system of labor, or the domestic system,—which was displaced when machinery came in, and the factory system became fixed,—the most demoralizing conditions prevailed. Those who believe that the old system was better than the new, find something poetic in the idea of the weaver of Old England, before spinning machinery was invented, working in his cottage at the loom, with his wife and children about him. From this picture they derive the impression that

the domestic system was better than the present. This sentiment has done much to create false ideas as to the influence of machinery upon the life of the laborer. Goldsmith's "Auburn" and Crabbe's "Village" do not, in fact, paint the truest picture of their country's home life under the domestic system of labor. The domestic laborer's home, instead of being the poetic one thus painted, was of a very different character. Huddled together in his hut, which was far from being the vine-covered cottage of the poet, the weaver's family lived and worked, without comfort, convenience, good air, or good food, and without much intelligence. Drunkenness and theft made the usual home the scene of disorder, want, and crime. Superstition prevailed, and envy swayed the workers. If the members of one family, endowed with more virtue and intelligence than the mass, tried to so conduct themselves as to secure at least self-respect, they were either abused or ostracized by their neighbors. Ignorance added to the squalor of the home, and what all these elements failed to produce in making the hut a filthy and repulsive den was faithfully performed, in too many instances, by swine. The reports of the Poor Laws Commissioners of England are truer exponents of conditions than are the poetic descriptions, and more faithfully reveal the demoralizing influences of pauperism, and of the other curses which were so prolific of evil under the hand system of work.

The ethical effects of the division of labor which has resulted from the general use of machinery are marked. They mean much to the young man seeking to enter upon an occupation. Trades are hardly essential now. The apprentice boy, if he is bright, can learn his trade in much less time than was required in the old way, under which he became a journeyman by the lapse of years spent in his apprenticeship. Modern conditions, through manual training and the results of the trade school, permit a boy to utilize his whole time, and, as soon as he becomes accomplished, or well equipped in his particular trade, to command the wages legitimately due. He has had the experience of good training, and he has an advantage over the old apprentice, both in the saving of time, and in the earlier reward which his skill commands. With the diversity of employment which has resulted from the use of machinery, there have come shorter hours of labor and correspondingly increased opportunities for mental and moral improvement. With this gain of time, wages have been greatly increased, and the cost of the principal articles of consumption constantly reduced.

As to production, one illustration drawn from the cotton industry will serve for all. An average adult hand-loom weaver can weave from forty-two to forty-eight yards of common shirting per week; a weaver in a modern factory, tending six power-looms, can turn out about fifteen hundred yards per week. On the hand-wheel (one spindle) a spinner

can turn off three pounds of yarn in a week; the operator of the mule spinning-machines can turn out over three thousand pounds in the same time. All this means a corresponding decrease in the price of the product, and brings it within the reach of many persons of moderate means, who could not have afforded so good a product under the old conditions.

The hours of labor have been reduced from twelve or thirteen per day, in the same industry, to nine and one-half in England and ten (generally) in this country. An examination of statistical tables will convince any one that for most divisions of labor in textile factories, wages have been nearly doubled during the past sixty or seventy years, and will show like results for many other industries.

There has been no debasement of humanity by the substitution of machinery for human labor, and there is no danger in such substitution. Machinery has not, as is so often asserted, helped to create new and wide inequalities in society, turned thousands into tramps and vagabonds, or hardened the natural selfishness of men. It has at times been a hardship, for it has created new relationships in life. It has changed the old individual relationship of the employer and the employee to the corporate relationship; but it is now forcing men to the conclusion that moral attributes are just as powerful, and the application of moral principles just as feasible, under the new corporate, as under the old individual, relations. It has been the means of reducing the work-day from twelve or fourteen hours to nine or ten hours, and the inevitable result will be still further reduction in the time necessary for the earning of a living. It has not only shortened the work-day; it has also increased the remuneration per hour.

These influences have been going on until there has been established a new law of production, which is, that the employment of machinery necessitates, as a rule, a larger outlay of capital for the production of the given unit; that the profit accruing to capital on this unit is decreasing; that the reward to labor for the same unit has increased; and that the cost to the consumer has decreased.

Most machinery is expensive, and an establishment equipped with the very best appliances finds itself compelled, when new processes are invented and new mechanical devices brought into existence, to sell its old machines for old iron. Labor must then replace it all, and so the evolution of invention goes on. The opportunities for employment are widened; the work-day is shortened; the reward for labor is increased, and a larger proportion of the whole population is provided with employment.

A TWENTIETH CENTURY VIEW OF THE LABOR PROBLEM

By *JAMES B. REYNOLDS*

Superintendent of the University Settlement of New York

A LARGE portion of the troubles of life are due to misunderstandings. Particularly is this true in regard to the troubles between employers and employees. The evolution of modern industry has wrought a great change in the relations between them. When a man employed only a few workmen, he knew them all, and they could state their grievances to him, personally. He could tell them what he could do and what he could not do to improve their condition, and the limitations which the necessities of business imposed upon him. They might disagree and they might quarrel, but quarrels were far less likely then than now to result from misunderstandings.



The modern captain of industry, at whose command thousands serve, is, of necessity, an entire stranger to the vast number of employees whose toil makes him prosperous. Often he has but a very faint conception of what manner of men they are, and frequently they know him only by reputation as a "bloated capitalist." Under such circumstances, it is natural that suspicion and animosity should exist where there should be mutual trust and confidence.

One of the most important problems of labor, therefore, is to find a substitute for that personal contact between employer and employees which is now no longer possible. Where organizations exist, it is in a measure attainable by the appointment of committees, by each side, to discuss differences, suggest remedies for grievances, and to make mutual concessions. How admirably such a system may work, has been strikingly illustrated in the bricklayers' trade in New York, in which, for eleven years, no strike occurred. This was because, before recourse to such a deplorable measure could be had, the matter in dispute had to come before a standing board of conciliation, composed equally of representatives of the employers and representatives of the workmen. From the decision of this board an appeal might be taken by either side to a board of appeal, also composed equally of representatives of employers and employees. Thus, there were abundant opportunities for getting together, exchanging views, and arriving at a proper understanding of

each other's position. Opportunities for a misunderstanding were reduced to a minimum.

When the employer of a large number of men acts in his individual capacity, apart from any association of employers, he will, I am sure, find that it pays to make conciliation a recognized part of his business, just as much as bookkeeping, and he should put in charge of it some man of sound judgment, tact, and discretion, whose duty it should be to do what the employer himself has not time to do,—get acquainted with the men, study things from their point of view, investigate their grievances and complaints, and report them, with any remedies he may be able to suggest, to his employer. This duty is now supposed to be discharged, in a measure, by the general superintendent, or by the heads of the various departments. As it is also an important part of the business of these men to make the employees contented, and to obviate, as far as their powers permit, all reasonable cause of complaint, an acknowledgment by them that such cause exists is tantamount to an admission of their own incompetency. Therefore, their interest lies in not reporting grievances to the employer. This ought to be apparent to the employer himself, but, acute though he may be in business matters, generally, he often fails to see it. Whichever side wins, both employers and employees have to pay dearly for strikes. Merely as a matter of business economy, therefore, it is worth while to pay something to prevent strikes.

How to assure the industrious and deserving workman permanent employment, is another of the weighty and perplexing problems of labor. Despite all that is said about the value of thought, the fact remains that few workmen with families, except in the highly skilled and proportionately well-paid trades, can save enough to tide them over any considerable period of enforced idleness. As to laying by enough to support them in their old age, that is well-nigh hopeless. It is hard to realize, except through personal association with men subjected to these conditions, how bitterly they feel the hardships of their lot. Imagine what it must be to realize that, work as hard as you may, from dawn to dark and perhaps far into the night, you can never place your family beyond the menace of actual want, or the humiliation of dependence on charity! It is not to be wondered at that the man who is continually facing such a prospect feels that there is some bed-rock injustice in the social order, when he contrasts his condition with that of the man at whose hands he asks only the boon of steady work. Yet, that a man should be "dropped" after serving an employer faithfully, though it may be in a humble capacity, for ten, fifteen, or twenty years, is of such common occurrence that it excites only passing pity for the victim, and "business" is held to be sufficient justification for the conduct of the employer.

Wherever feasible, I believe that a system of insurance should be adopted, to which both employer and employees should contribute, to provide against such contingencies and the other vicissitudes of life. Under such a plan, the man who has worked a prescribed number of years would receive an income, small to be sure, but still worth taking into account, if it should come to a struggle against starvation. The details could be so arranged, as in the excellent plan adopted by the Pennsylvania Railroad Company, that the amount of the pension would increase in rates corresponding to the number of years of service of the beneficiary.

Rightly or wrongly, the workingman feels that he does not get a fair share of the profits derived from the products of his labor. In his place, the man of millions would probably feel the same way, but it requires a powerful imagination to bridge the gulf that separates the day-laborer and the millionaire. There can be no doubt that, if some general system could be devised whereby the workingman could become more directly a profit-sharer than is possible under the wage system, alone, labor troubles would be greatly diminished.

In many industries, as now organized, direct profit-sharing is hardly possible, but something of that sort which will insure a more equable division of the wealth actually produced by labor than now prevails, stands for the ultimate solution of the labor problem. Meanwhile, we should be content to make progress slowly, and give assistance and sympathy to every movement which tends in that direction.

For this reason, the University Settlement Society welcomes the meetings of trades unions within its quarters. Despite grievous errors which may be charged against some of them, trades unions have greatly benefited workingmen in the past, and in the future they are destined to play a still more important part in ameliorating the workingman's condition. In such organizations the members learn the value of solidarity and coöperation. They exercise a distinctly educational influence. Economically considered, there can be no doubt that they do much to keep up wages. Though generally regarded as promoters of strikes, an examination of the facts has convinced me that their influence is opposed to strikes and tends to minimize their number. Strikes are far more frequent among trades that are not organized than among trades that are organized. And the stronger the organization the fewer the strikes.

THE INDUSTRIAL DIFFICULTY AND THE WAY OUT

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THE too frequent recurrence of industrial crises demands that an honest effort be made to seek for and apply a remedy. It is very certain that, in view of the frequent oppression of labor by inconsiderate capital, the strike is a necessary evil. But there are not lacking in the ranks of labor, smooth-tongued demagogues who, by their appeals to low passions, are ready to foment trouble and intensify unreasoning hatred; while, on the other hand, employers find their evil advisers in the petty bosses, who are often the worst of tyrants.

Political economists, after discussing the common remedies for industrial disorders, seem to doubt the efficacy of their own theories, for they know that the deepest root of the social difficulty lies in the grasping spirit of avarice, which leads some men to ride to preëminence over the backs of their fellow-men. This spirit is so deep in the human heart that it cannot be touched by any human law, or counteracted by any shifting of social systems. Economists are compelled to admit, and they do admit, that, in state socialism in all its varying grades, as well as in individual ownership in all its various measures of absolutism, the same cankerworm exists at the heart of things. So they universally conclude that, when everything else has been said, a more or less generous infusion into the affairs of men of the spirit of the Nazarene Carpenter is necessary to solve the problems of the industrial world. If employers had a little more of the "I have compassion on the multitude" spirit,—if men believed more firmly in the fact that it is necessary to seek, first of all, the kingdom of God and His Justice, in order that all things else may be added thereunto,—if the world took seriously the fact that this life is but the preparation for the Christian's real life beyond the grave, there would be no need of flaunting socialistic theories, the walking delegate's occupation, like Othello's, would be gone, and the employer and employee alike would have a reasonable sufficiency.

We cannot, however, hope in the present state of human nature that the spirit of religion will be so universally absorbed that it will abolish

inordinate greed for gain. While every effort is made to leaven the mass with it, there will still be clashing of interests. The rights of the weaker party will be overridden by the superior strength of the more powerful, and there will be, again and again, the spectacle of industrial warfare, the clash of arms, the calling out of the militia, the street mobs, the spilling of blood, and the defeat of the employees.

When the crisis comes, heroic measures must be resorted to. I believe in compulsory arbitration. This is founded on the fact that in every extended strike there are other parties involved besides the employer and his workmen. That great body of people, who may be comprised under the name of "the public," have most vital interests at stake. No industrial battle can be waged without invading the right of thousands to the peace of their homes, and the quiet pursuance of their various vocations, the right of wives and children to the necessities of life, the right of the whole country to its good name for peaceful citizenship and the protection of property. "The public," which is a larger body than employer, trusts, or labor unions, must protect itself, and, if the parties to the industrial contention will not come to an agreement, then, surely, in the commonwealth there must be found a power that will compel them to agree. I say "compel," because voluntary arbitration has been a practical failure. The history of strikes shows that when one party to a strike thinks it has a very weak case, it is always ready to have recourse to arbitration, while the party who thinks it is going to win will not have it.

There should be a well-established court of arbitration, composed of eminent men, representatives of all classes,—the capitalistic as well as the labor,—men of unimpeachable integrity. This court should be surrounded with the same reverence and dignity as surrounds the supreme court of the United States. It should have supreme authority in the premises, to compel the attendance of witnesses and the production of books, and the power to inflict penalties for contempt. Its decision should be final.

The existence of such a court, absolutely fair in its rulings and compelling in its decisions, would very soon force conciliation and engender a regard for the rights of others. In regard to the objections urged against compulsory arbitration, that it violates individual liberty and freedom of contract, and attempts to fix wages and prices by law instead of leaving them to be determined by the conditions of the market, the government must decide. Of course, it is necessary to guard the freedom of contract, and to maintain its inviolability, but the freedom that the right of contracting enjoys has its limitations. It is limited by the right of fundamental laws of justice. There cannot be a contract to do a

thing that is evil in itself. It must also be in accord with the commonweal. The law-making power has ever so decided.

Let an employer make whatever contract he pleases with his men, but, if it is found that in the hiring of his men he takes advantage of their necessities, or if he insists upon inserting in the contract a clause which denies to the men the inalienable right to organize for their common good, has the state no right to protect itself against the consequences if a strike ensues?

A few years ago a neighboring people could not keep the peace within their own borders; we sent the military and naval forces there and insisted on peace. Shall we not utilize the eminent power that is invested in our commonwealth, to maintain the peace within our borders, by compelling the disputants to accept the decision of a disinterested court of arbitration? The right of contract may be thereby limited, but what about the contract that every legal unit, be it corporation or individual, is under to keep the peace? Is this to be violated in order that a fictitious liberty be given to another contract? As Henry B. Lloyd puts it in his well-known book, "A Country without Strikes":—

"We say to the capitalists, you and the laborer and the consumer and the public are all interested. We — the state — are the only agency known to society which can protect and harmonize all these interests,—provided, always, that you cannot or will not harmonize yourselves. We cannot leave you to settle with each other in the old way, for that, we know, leads to strikes, devastation, hate, and even bloodshed. In this world of laborers, capitalists, consumers, and citizens, you, the employing capitalists, are a very small minority. We do not propose to sacrifice you or to do you any injustice, but, neither do we intend to allow you to do us any wrong or injustice. You must settle your irreconcilable differences between yourselves and your men by reference to a disinterested arbiter, and not by strikes and lockouts."

Had the state of Missouri been in a position to make this statement to the St. Louis Street Railway Company, in 1900, what money would have been saved and what disgraceful scenes avoided, and the good name of our Western city, for law and order, and civic honor, would have been preserved? It seems very hard to understand why compulsion cannot be used to prevent economic crime, as well as any other crime; to put down an industrial injustice, as well as a civil injustice; to defend the industrial rights of the people, as well as their legal rights.

The second objection against compulsory arbitration, that it arbitrarily fixes prices and wages by law and does not leave them to the fluctuating conditions of the market, does not hold, either. A court of

arbitration, where the actual conditions of the market are laid bare, affords the very best place where the agencies that fix prices may operate, untrammelled by any external influences.

Prices are now fixed by greed, by corners, by throttling competition. The court of arbitration will eliminate all these extraneous influence and allow the genuine laws of supply and demand to fix prices.

In New Zealand, the labor unions have found the court of arbitration a veritable bulwark of justice, and in spite of the forebodings of prophets of evil, it has eliminated strikes. It has established justice and social order, where industrial anarchy prevailed before. It is a welcome boon to both capital and labor. How long will the practical common sense of the American people be in finding that this is the way out of the industrial evils that plague us?

CONDITIONS OF SUCCESS IN MANUFACTURING

By J. C. BAYLES
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IN THE ultimate analysis, almost all human industry is a form of manufacturing, more or less complex according to circumstances. The orderly arrangement of unrelated parts, and the bringing into artificial combination of forms of matter not associated in the economy of nature, is manufacturing, whether limited to the making of unglazed pottery and the weaving of mats from stained rushes, or expanded and differentiated as we find it in countries like our own; in which a high and regularly developed civilization finds its distinctive characteristic in a progress of the arts and sciences so rapid, that it is followed with difficulty even by those who contribute to it. Thus the economist recognizes in manufacturing the basis of all orderly and systematic human activities. Under the conditions of civilized life one cannot get so close to nature as to be even temporarily independent of the skill and industry of the mechanic. If he plunges into the wilderness, he needs the firearms and ammunition of the highly organized factory for his defense against wild beasts. He clears the forest with an ax which no blacksmith could forge by hand. He breaks the virgin soil with a plow which implies the preëxistence of a mine, a blast furnace, a foundry, a wood-working shop, a rolling-mill, a nut and bolt works, and perhaps a dozen minor industries. The spade and hoe, with which he performs the operations of crop planting and



tending, mean another system of organized industries which are the result of centuries of development from the archaic types of hand-wrought tools. The appliances for reaping and harvesting are made for him by skilled mechanics, whose intelligence is expressed in the construction of machinery possessing, in arms of iron and fingers of steel, more than human dexterity and precision. His grain is threshed and cleaned by machinery; it is carried in wagons to car or vessel, and ultimately reaches a market as flour, after treatment by one of the most exact, rapid, and economical manufacturing processes known in the arts.

What has been said of farming is equally true of mining, lumbering, and the crudest processes of taking raw material from the earth. The mechanic supplies the means by which even the rudest labor is performed; to be a manufacturer of something useful is to render society an essential service. To manufacturing every material industry is tributary; upon it every material industry is dependent.

The young man who elects a career identified with some department of manufacturing need not be hypercritical in the choice of fields for the employment of his talents and energies. The farmers have a proverb that, "There's more in the man than there is in the land," which embodies a good deal of practical wisdom. Of manufacturing it may be said that there is more in the man than there is in his trade. Generally speaking, any industry which produces something useful, meeting a general and permanent want, not subject to the caprices of arbitrary fashion and not contrary to the public policy, is, in the average of years, as good a business to follow as any other. As a rule, selection is the result of the accident of opportunity. Wherever this leads the industrious and ambitious young man, he will, usually, find himself as well off as if it had led him elsewhere. Such dissatisfaction as he may feel with his lot in life will be seen, on close analysis, to be due either to an exaggerated idea of favorable conditions existing in lines of business with which he is unfamiliar, or to a lack of qualities which are as essential to success in one business sphere as in another. In either case he will be encouraged by recalling the quaint couplet of Herrick, which I once found hanging in the billiard-room of a manufacturer whose success had astonished two continents:—

"Man's life's a game of tables, and he may
Mend his bad fortune by his wiser play."

I knew a boy who needed work, and after some search for just the kind of work he wanted, took what he could get at the moment, a place in a little shop where certain sheet metal specialties were made. It seemed like a start, not merely at the foot of the ladder, but at the bottom of a deep hole into which no ladder extended. The lad was not a

genius in any sense, but he had good habits, good judgment, and the capacity for practical thinking. He kept his eyes open and observed that there was need in the market for a better, safer, and cheaper lantern than he could find in the stores or in the catalogues. So he went to work to make a lantern. It did not call for the exercise of inventive faculty in any high degree. What it needed was what he had already given it—thoughtful study from two view-points,—that of the maker and that of the user. He built a lantern and tested it at night until the results were satisfactory. Then he began the designing of certain simple machines which should produce its several parts cheaply and accurately. He was neither an engineer nor a draughtsman, but he had ideas and was able to make them intelligible to others. As the final step, he arranged with his “boss” to make the lantern for a small royalty to himself. It was exactly what the trade wanted. The shop became a lantern factory, with the inventor as superintendent. It grew and kept on growing until it became a great factory. It made the inventor rich in less than half the life of the patent, and was then capitalized for a million dollars, of which the inventor received four-tenths for the sole manufacturing rights, and a large salary as president and general manager. Industrial biography is full of such instances.

Most readers are familiar with the condition of the manufacturer before the days of machinery and power, when he was an artisan and his qualifications were largely in his manual dexterity. He began as an indentured apprentice, and wasted years in learning what the young man of to-day can learn in months. When his apprenticeship was finished, he became a journeyman, traveling from place to place seeking employment to gain the experience impossible of acquisition during the long period of almost menial servitude to a master. Where his wanderings might lead him, and in what condition it left him when completed, depended largely upon himself. If successful in making a satisfactory alliance, he might expect in time to become the partner and successor of his master, especially if so fortunate as to marry his fair and virtuous daughter. The man who chose this life elected identification with a caste which, under no conditions, permitted him to rank above the inferior social status of a “base mechanical.” Every swashbuckler who wore a sword or sported even the tattered remnants of a military uniform looked down upon him as one whose fat purse was the rightful prey of the soldier of fortune clever enough to get it. He might, later in life, become an alderman or a burgomaster, but even in a station of civic dignity he was still of the tradesman class, useful to furnish the king, the nobility, the gentry, and the cut-purse the means of living without labor, but having himself only such rights as he dared assert at the risk of life and liberty, and was able to defend with stout cudgels and such other weapons as were

permitted the common people. It was a life which had its compensations, but it finds no parallel under modern conditions, where the successful manufacturer is the counselor of monarchs and the mainstay of governments. Lessons and precepts drawn from the traditional wisdom of the centuries anterior to the nineteenth have very little value as guides to success in individual achievement. All that remains worth considering of experience in manufacturing, prior to the revolution which brought about the conditions now existing, are the homely precepts relative to industry and thrift, which crystallize eternal truths.

With the advent of the steam-engine and the gradual entry of the labor-saving machine into the domain previously monopolized by the artisan, with his endowment of manual dexterity, all the conditions changed. Without following the successive steps of the change, it is sufficient to say that the "all-round mechanic" found his sphere of usefulness gradually narrowed, and his skill brought into competition with the more useful practical knowledge of the specialized mechanic.

The young man who elects to become a manufacturer will find various careers open to him, but he should divest himself of any mistaken notions as to the steps he should follow to win an honorable success. It is possible, under conditions sometimes obtaining, to begin by "learning the trade" — to rise by sheer force of character and natural capacity, step by step, from the bottom to the top of the ladder. Indeed, it is frequently done, but the opportunities for doing it are steadily diminishing.

For all but perhaps one in fifteen or twenty thousand young men, the only opportunities offered for careers in manufacturing lines are in those which produce the standard articles of general consumption. The shotgun, which scatters its leaden pellets over a constantly widening area, and makes an approximate aim deadly at short range, does very well for small game, but the grooved rifle, sending a bullet to a spot no larger than the end of one's finger, is the only effective weapon for anything which offers resistance or repays the taking. The man who can make shift to "do anything" in the way in which the general utility man usually does it, finds his way inevitably to the scrap-pile of human failures. For the man who can do something better than others can do it, the way to success is always open, and his opportunities are what he is pleased to make them.

The young man who elects to follow a career in manufacturing should study his natural qualifications, and determine what general class of work he is best fitted for. To be master of something will give him the pass-key to many tightly-closed and well-guarded doors. To have command of even large capital, will not insure him a successful career. Large capital has, in many instances, been dissipated by injudicious manufacturing investments; it has been shrewdly

remarked that it requires more talent to manage capital wisely than to accumulate it. The shrewd man of affairs will usually display more capacity in avoiding losses than in gaining profits. Capital suggests a comparison between itself and a boat running the Lachine Rapids. If it is started right, it is carried safely through by the force of the water; if started wrong, or unwisely diverted from the path of safety by the nervousness or ignorance of the pilot, it is inevitably wrecked.

A manufacturing business organized on any scale above that of the cobbler at his bench, or the farrier at his anvil, naturally divides itself into four departments: Producing; selling; accounting; executive management.

To excel in any one of these widely dissimilar departments of business activity is as much as the average man can expect to accomplish in an average lifetime. Time was when the best, and indeed, the only, method of preparation for the management of a shop was to "learn the trade" and to work at it until every process was familiarized. By this means a man became "practical," and to his ability to take off his coat and perform with his own hands every operation of the business, was attached a wholly fictitious value. Some may still find this method of gaining knowledge, so wasteful of time and tissue, the only one open to them, and may possess a mental endowment so exceptional as to attain by it the position of a master. The difficulty with this method is that it teaches only practice, and imparts none of the general knowledge, by means of which practice may be improved and made to conform to the requirements of industrial progress.

The young man with the usual grammar-school education, who, fired with the laudable ambition to become one of the "captains of industry," enters a shop to learn the business practically, has many unexpected discouragements and disappointments in store for him. He will find it easy enough to put himself in the front rank of the wage-earners, and to command the respect and confidence of his employers. They would be glad to fill their shops with men just like him. He may become an assistant foreman or a foreman, and earn what is considered good wages. But when vacancies occur on the staff of the general manager, or heads of departments are needed, he will notice that young men who wear good clothes and whose hands do not show stains, scars, and callouses of the shop, step into these vacancies and somehow manage to fill them successfully. If he makes inquiry as to the antecedents of these intrusive strangers, he will find them to be graduates of the technical schools, who may or may not have had experience in minor positions elsewhere. If he comes into such relationship with them as is easily possible without breaking the rules of shop discipline, he will discover that they know a great many things of which he is ignorant. Their

horizon is broader than his; they think and reason on a plane to him inaccessible. Between his ignorance of theory and of the application of the higher mathematics to useful ends, and their intimate knowledge of principles, there is "a great gulf fixed," which may be crossed only as the result of the most sacrificing devotion to the labor of self-education. He soon recognizes that, no matter what he may become, many of the doors to advancement that he had hoped to force by the display of character and capacity, by tireless industry, and a careful regard for the interests of his employers, are effectually closed to him by reason of the limitations of his education and his unfitness for managerial duties which demand a knowledge of physics, mechanics, chemistry, and mathematics. His mistake was in overlooking the changed conditions of industrial organization, and in seeking to approach the control of production by a path which almost invariably leads only to the bench, and stops there.

In what precedes, I have attempted to generalize from average experience. A hundred, or perhaps a thousand, cases could be cited in which, with few opportunities for an elementary education, and still fewer for the acquisition of thorough shop training, great mechanics have come to the front and won fame and fortune through substantial achievement. The greatest men of this class that I have ever known would have been greater, the most successful would have found success easier, and more satisfactory when gained, if they had not been handicapped at every step by the lack of acquired qualifications. It is a safe general rule that the young man who has the ambition to succeed in the department of a manufacturing business which deals with production, should prepare himself with the best technical education he has the means and opportunity to acquire. He will have constant use for every scrap of general knowledge that he can gain. Chemistry, physics, mechanics, and mathematics, are the essential tools of a great mechanic. To say that some have done great things without them is to state the exception which proves the rule. These same men could have done greater things with them.

From the technical school, the young man should enter the shop in any capacity offered. He is not expected to serve as a consulting engineer, and does not need to wave his diploma or parade the initials indicative of his academic degree. An incident came to my notice quite recently which is instructive and worth repeating. A bright lad, with a clear title to write A. B. and M. E. after his name, went to work in a shop where an air compressor was used under somewhat peculiar circumstances. His duty was to run this compressor, keep it clean, and do whatever else the foreman thought him fit for. No one knew that he was an engineer with a degree, or that he could have played schoolmaster to foreman and superintendent. He took good care of the machine under his charge, but the governor gave trouble, and the representative of the

makers was sent for. He came, looked it over, and spent a fortnight trying to make it work properly. Then another man of higher rank came and spent another week on the same job. The young man answered questions respectfully and asked them so intelligently that he soon gathered a great deal of useful information. Among other facts he learned that a simple, practical, and reliable governor for air compressors was greatly needed, and that to devise one would repay the effort. He got out his books, read all the available literature on air compressors, and went to work on the problem.

In about three months he had found a new principle in air compressor governors, had worked out its formulæ under all conditions of constant and variable pressure, had made a full set of drawings, had them dated and witnessed, and was ready to "talk business." He approached the superintendent of his own shop, but got no other satisfaction than that the concern had no money to waste in amateur experiments with other peoples' machines. He then wrote to the general manager of the works which built the compressor, giving a brief statement of what he had done. By return mail he received a railroad ticket and an invitation to visit the works. The result was that his idea was enthusiastically approved, an arrangement was made for patenting it in every country having a patent system, and the young man was offered a position on the engineering staff of the works, which he promptly accepted.

When he returned to the shop in which he had originally worked, it was through the office instead of the gate, and his errand was to perfect the air compressor he had tended, by equipping it with his governor. He is now chief engineer of the concern he went to with nothing but a well-considered and useful idea. If the young engineer will use what he knows in such work as he has a chance to do, the fact of his capacity for more responsible duties will soon appear, and he will find that the road to the top is open to him,—whether in the shop in which his career begins, or in another, is immaterial. He will have more opportunities than he has time to avail himself of.

The best kind of influence is the reputation of being thoroughly equipped for managerial responsibility. A man with such a reputation, combined with character and good habits, does not need to bewail his lack of capital. The latter is constantly on the lookout for him, and will find him in the middle of Sahara, if need be, with offers which influence could not secure. I know a number of young men who entered life with no other capital than a good education, who, in less than five years from the date of their start, were earning the incomes of millionaires. Some hold high offices in great corporations, others have liberal participation in the earnings of plants capitalized for millions. As I have

already shown, genius may accomplish this without the assistance of technical knowledge, but the man who depends upon genius to float him to success in manufacturing usually has none, and mistakes vanity for that endowment.

Whether the young man ambitious of success in manufacturing should choose the shop or the office is largely a question of temperament and bent. As a general rule, it may be said that if fit for one he is unfit for the other. For the young man without a pronounced mechanical bent, the office will generally be found a more attractive field than the shop. It is usually easier to make something than to sell it to commercial advantage. In a manufacturing business the skill and judgment of the mechanic must be supplemented by the skill and judgment of the merchant. The Bible gives us a significant combination—a trinity in unity—when it describes “buying, selling, and getting gain” as the three functions which are combined in a profitable transaction. Millions of men can buy and sell, but the number of those who have the instinct of gain-getting is relatively small. The fruits of the mechanic’s labor will not market themselves. The selling function, in connection with manufacturing, is, as the rule, of greater value to the business than the producing function. A larger volume than this would fail to hold the records of the brilliant mechanical achievements of the past ten years, which have been complete and heartbreaking failures because the talent and industry which produced them were not supplemented by the commercial skill and business judgment needed to find a market for them and to establish them in public confidence.

The difference between making goods and profitably marketing them is similar to that which exists between editing a newspaper and publishing it. They present coördinate functions, and exist in absolute mutual interdependence. To be a successful salesman, a young man needs to develop every talent of his natural endowment. He can no more have “a system” than a physician can practise with a single prescription. He deals with all sorts and conditions of men, and must be a shrewd judge of character. He encounters all kinds and combinations of favorable and hostile influences, and must be prepared for every emergency. He is hedged round with keen competition, and must meet it without sacrifices which involve loss, unless behind the loss a large and compensating profit is visible. He must possess the capacity for close analysis in the matter of credits, or he will make more sales than collections.

These are the elements of business qualifications. In addition, he must have earlier and more exact information than others can get, or at least do get, as to trade tendencies and business opportunities. Lacking prophetic foresight or sure judgment, he must cultivate to the highest development the power of rapid and accurate generalization, and the

percentage of his mistakes must be small. He should be capable of forecasting the future shrewdly, and needs to keep his eyes and ears open to indications and warnings which, if unnoticed or unheeded, may involve the loss of great opportunities or the encountering of great dangers. The very highest commercial talent which can be employed is needed in connection with modern manufacturing operations, and the young man who has it, or can acquire it, has before him a career in which every avenue leads to success.

The young man who undertakes to be a salesman under a competent general manager must look out for himself, as his employer is likely to set all kinds of traps for him. Shrewd managers have many ways of "keeping tab" on their outside men. One has what he calls his "graveyard," an almost impossible field, where the man who can get business is rated a success from the start and has the best chances thrown in his way. Another has confidential relations with customers, who size up a new salesman and report how he behaves himself and what sort of impression he makes. It is results which count in the end, however. Too fierce an onslaught for business usually defeats its own ends. As the late A. L. Holley wittily remarked: "A boiler which will get up steam in three minutes, may be expected to do almost anything in the next three minutes."

The real talent of the salesman was well illustrated by A. B. Gates, general agent of the United States Life Insurance Company. Mr. Gates was walking down Broadway, when a man in a great hurry attempted to cross the street, slipped on the pavement and had a narrow escape from getting tangled up with a truck. Mr. Gates saw the incident, buttonholed the man the moment he reached the sidewalk, said something to him which others did not hear, and before he released him had taken him to the company's office, put him through a medical examination, and had insured his life for ten thousand dollars.

A good story is told of a clever salesman employed by the Bethlehem Steel Company, who corralled a party of Russian officers who had come to this country to place a government order for armor-plate. He entertained them at luncheon in a style worthy of the company he represented. He realized, however, that his guests were a bit offish, and saw that he must do something quite unusual to capture them. After the luncheon toasts were offered and drunk, among others, one to "His Imperial Majesty, the Czar." Every Russian drained his glass, snapped the stem, and threw the fragments over his shoulder to the floor. They explained that when the health of the Czar was drunk, no loyal subject would leave his glass in condition to be profaned by other use. This gave the salesman an idea. Making sure that the door behind him was open, and that he could make a run for it, he offered a toast to "His Excellency, the

President of the United States." The moment it was honored he took a double hitch on the tablecloth and started for the door, sweeping everything to the floor in a promiscuous wreck. The Russians were astounded, and on demanding an explanation were gravely told that "when the toast to the President is drunk, the patriotic American makes it his business to break every dish on the table." The Russians were delighted. They slapped him on the back, shouted over him, and pronounced his performance the greatest thing they had ever seen. It cost the company about \$300 for dishes and glass destroyed, but the salesman got the order.

In manufacturing, the function of accounting possesses a steadily increasing importance. By accounting I do not mean the perfunctory bookkeeping which was once considered sufficient. Keeping manufacturing accounts is an art by itself, and some of the brightest minds in the business world have found a lifelong employment in seeking solutions for the modern riddle of the sphynx: What is the cost of goods, and how shall that cost be apportioned so that every part of the production and distribution may bear its fair share of the expense and receive its fair share of the profit? I have compared this to the riddle of the sphynx in the classic fable, for the reason that those to whom it is propounded must guess it correctly or be torn in pieces by the process of bankruptcy. Ignorance of cost, and the mistaking of loss for profit, have wrecked more promising manufacturing enterprises than all other causes together. It is no unusual thing to see a great and long-established house which has expanded its trade and paid liberal annual dividends, suddenly collapse, to the astonishment of the public and the consternation of its officers and stockholders; and to find on critical examination that it has nothing left of capital or surplus. It is difficult for one having no manufacturing experience to know how this could be without dishonesty and the deliberate falsification of the books, but it may very well happen without either, being caused by no worse wrong than dependence upon incompetence in the accounting department. Not to know exactly what his goods cost him, is for the manufacturer as perilous as sailing the ocean without a compass. The error usually lies in fictitious inventory valuations, through which the business appears to be growing rich in productive assets, when in point of fact its only tangible asset is the residuum of dry rot. Where capital and surplus have gone is into the making of goods at a cost above their selling price, without knowing until too late that nothing remains with which to continue the process.

The young man with the requisite natural qualifications who will make himself an expert in manufacturing accounts, will find that this work offers him a satisfactory career, probably bringing him many

opportunities for honorable and lucrative identification with great enterprises. Few offices are more important in an industrial organization than that of treasurer and financial manager, and it is within the truth to say that such positions are much more numerous than are men qualified by character and attainments to fill them. The subject of manufacturing accounts has a literature of its own, and may be mastered by any one who will give it the time and thought required to become an expert in any branch of applied science.

In the field of executive management, the man endowed by nature with the intelligence, judgment, and force of character, which are the basic elements of executive ability, has, in connection with manufacturing, a field in which the successes possible admit of characterization as magnificent. The vice-president of one of the greatest industrial organizations ever formed, which for nearly half a century has been one of the most powerful corporations in the world, once said to the writer: "We have no trouble in filling positions satisfactorily until we reach those which are worth a yearly salary of \$10,000. From that up the difficulty steadily increases. We have now three vacancies, and to men capable of filling them I would gladly give contracts of employment for ten years at \$20,000 a year. We are ready to pay more \$10,000 salaries than we can find men capable of earning them." The venerable precept that there is "always room at the top" crystallizes a truth which is every year more clearly emphasized, and which is much truer than when first formulated.

The ideal executive is a broad-minded man of affairs, who is wise enough to recognize the fact that he has high duties which will not permit him to waste his time in doing things which he can have done. The moment he forgets this, and allows himself to be saddled with work which can be safely assigned to others, he puts himself in competition with cheaper men, and so much of his time as is thus employed is immensely overpaid. He need not be a man with technical qualifications; it is enough if he knows a capable superintendent when he finds him, can trust his own judgment, and has the nerve to hold his subordinates strictly and justly responsible for results. Under no conditions can he afford to assume any part of the responsibility of a subordinate. What he approves and authorizes is carried out by the latter, who must have an undivided responsibility in his sphere, or he cannot be held to an unshared accountability. The executive head need not be a merchant, but he requires a fair share of the instinct, and should perfectly understand the system by which the distribution of product is effected. He need not be skilled in the details of corporate finance, but he does require a broad comprehension of financial problems. He need not be an expert accountant, but if he cannot analyze the books of his business, and does

not know what results mean when reached, he is incompetent. This combination of qualities is possessed only by those who are born leaders of men. That they can be acquired is doubtful; that they may be developed by training, as a man with the frame and constitution of an athlete may develop his muscles and expand his lungs, is undoubtedly true. For the reason that training would never transform the club-footed, hunchbacked cripple into an athlete, it would probably fail to correct the weaknesses of a character deficient in the qualities of masterfulness.

While the executive with important responsibilities needs to guard at all times against too much concentration of attention upon the details of his own business, to know what others are doing is indispensable. The value of such knowledge cannot be better illustrated than by an anecdote of Andrew Carnegie, probably the most conspicuously successful manufacturer of this or any other country. Mr. Carnegie is not a metallurgist. He could not run the least important department of his plant to his own satisfaction. He is not a merchant, and would doubtless have wasted his time in attention to commercial details. He is not an accountant, and probably could not earn a thousand dollars a year as a bookkeeper. But he is a great executive, doubtless the greatest of modern times; he created a business which for many years dominated the iron and steel markets of this continent. The anecdote I am about to tell I have from Mr. Carnegie's own lips. Its value is found in the fact that it perfectly illustrates the manner in which the executive head of a great, aggressive, and constantly expanding business was in the habit of meeting the exigencies of his position.

One day there came to Mr. Carnegie's office in Pittsburg a party of gentlemen, who introduced themselves as a committee of the board of directors of a company engaged in the manufacture of steel products in friendly competition with the Carnegie plant. Their errand was frankly stated. Their company recognized the fact that its business was less perfectly organized and less ably managed than his, and they had come as a committee to ask if he would show them his system, to the end that their own might be improved and modernized. Under the circumstances the request was not an improper one. Mr. Carnegie met the gentlemen cordially and assured them of his entire readiness to show them anything they wanted to see in his works or his office. He disclaimed a desire to make a mystery of anything which was tributary to his success, but added that the information they wanted, while freely at their command, would be valueless to them, for the reason that they would find themselves neither able nor willing to make use of it. He then invited them to accompany him on a tour of inspection. The first room they entered was an office separated from the bustle of the general counting-room. The visitors were invited to look about them. "This,"

said Mr. Carnegie, "is the key to my business system. The man at the desk in the corner is one of my highest salaried employees. The others are his assistants. This room and the work it does cost me \$80,000 a year. It does not add a dollar directly to the earnings of my business. It has no connection with design, improvement, analysis, test, production, sale, distribution, or finance. The whole work of this room is to keep me accurately advised on every point concerning which I need information. Primarily, it is my bureau of audit, and its work enables me to put my finger on any weak spot in my business as soon as it appears. It is also a bureau of information. Through it I learn what is going on all over the country, and I have no doubt that without leaving this room I could tell you more about the operations of your plant and the cost of your material and product than you know or could find out from your own records. The daily reports of this office reach me every morning, wherever I may be. They follow me to New York or across the ocean, and however much delayed in transit, the sequence is never broken. This office is worth not only what it costs, but a great deal more. It is the axis of my whole business system. My reason for saying that the inquiry you have undertaken would be profitless to you is due to the conviction that you would not recommend to your board a fraction of my expenditure for the purpose of information getting, and that your board would not approve the recommendation if you did make it. If I am right in this I will say, frankly, that it would be a waste of time to go further." The committee agreed with him, and, like the young man in the parable, "went away sorrowful."

Executive capacity is composed of many elements. Its basis is good judgment as to the policy of a business for the moment, for the day, and for five years to come. No closet man with the introspective habit of thought is capable of meeting this requirement. It demands, first, the power to estimate men and judge of their actions with judicial freedom from predilection or prejudice; second, the ability to define, fix, and respect responsibility; third, just and intelligent judgment of results, and the ability to subordinate personal feelings and friendships to a proper conception of duty. To a man who has these qualities, and whose character and life are in keeping with them, the opportunities offered in manufacturing are without limit. No matter where he starts, he can go to the top if he wants to.

All writing which is distinctly didactic in purpose, should begin with, or lead up to, a thesis. The thesis which a survey of the field warrants in the present instance may be formulated as follows:—

At no time since civilization began has the field of manufacturing offered opportunities comparable to those now presented to the man with the capacity and ambition to learn to do any one thing well.

The only challenge to discussion which this proposition offers will be discovered by those who see in great industrial combinations, mergers, trusts, and the like, the evidences of tendencies calculated to magnify the power of associated capital, and to dwarf and shrink the individual by destroying his individuality and making him an inconsequential unit in the system which absorbs, exhausts, and rejects him. The fallacy of this view is found in the fact that capital is merely the instrument by which human intelligence attains the ends it seeks to accomplish. It is as inert of itself as a hammer or a shovel. To set it usually in motion and to employ it to profitable ends, calls for the highest development of individuality of which the mind can conceive. Individuality is at a high and constantly increasing premium. The man who rises above his fellows in capacity, who can do something better than the average man can do it, who can be depended on to do it conscientiously, and who can adapt himself to changing and expanding conditions without displaying unexpected limitations, is wanted urgently in every part of our industrial system. He does not have to engage in a weary quest for capital with which to set his energies in motion. It will promptly recognize him afar off, run to meet him, clothe him with the robes and insignia of authority, and divide with him on his own terms the results produced by the combination of brains and money. The victims of the modern system of industrial organization are the men without individuality,—the commonplace, average men, who can do nothing which others cannot do as well or better.

The tendencies of industrial development, just now very marked in the direction of immense aggregations of plant and capital, so far from placing obstacles in the way of individual ambition, have multiplied its opportunities a hundredfold. Without the coöperation of the best talent obtainable, these great consolidations would be as helpless as ocean liners at sea without officers. They are constantly changing, like the groupings in the kaleidoscope, giving daily opportunities for qualified men to come to the front and show their fitness for places commanding princely salaries. To think otherwise is to ignore the obvious facts of experience.

WAREHOUSING.—The depositing or storing of goods in a warehouse under the care and inspection of government authorities. During the period of warehousing customs duties may remain unpaid. In the event of goods remaining beyond a specified time with charges unpaid the goods may be sold at public auction.

WOMAN'S RISE TO LEGAL EQUALITY

SELFISHNESS THE STRONGEST IMPULSE OF HUMANITY—THE ENTRY OF WOMAN INTO BUSINESS—LAW AS A RULE OF CONDUCT—MANY STATUTE LAWS PRACTICALLY OBSOLETE—THE POPULAR WILL AND EXTRAORDINARY EMERGENCIES—AMERICAN CONSTITUTIONAL LAW LARGELY CREATED BY MARSHALL—ITS LATER DEVELOPMENT—THE LAW'S OPERATION ON WOMAN—LEGAL EQUALITY REACHES ITS FULLEST DEVELOPMENT IN THIS COUNTRY.

THE present legal situation of women is so greatly different from what it was within the memory of persons still living, that every intelligent woman must be interested to know why and how the change has been effected. By nature, the average man is stronger than the average woman, and in the earliest days of humanity, when individual might made individual right, it would seem that the weaker member of the race must have been at the mercy or grace of the stronger member. But so long as men and women have existed together in this world, the latter have had qualities of their own to compensate for the inferiority in mere physical power, and there is no evidence that women, anywhere, at any time, have been submerged. If they had been, that balance which, by natural law, is necessary to existence, would have been destroyed, and women would have ceased to exist. In that event, there would be no woman question, nor men to consider and decide it.

After allowing for that instinctive affection for offspring by which the race is kept alive from one generation to another, selfishness is probably the strongest natural impulse of humankind. If the impulse had full play, the human world would be an aggregation of individuals, each living according to the individual will, or dying under the operation of some stronger will. But the impulse has never had full play, because of the natural tendency to association, and the absolute necessity of association, with its obvious advantages. So that even savages live in societies, and when once the most primitive tribal organization comes into view, women are seen to have their part in it, and a part sufficiently influential to make life at least tolerable to them.

Civilized societies have a larger and more complex organization than has a tribe of savages, and in such an organization, the relations of women become more extended and less simple. The general tendency and effect of civilization is to equalize conditions between

men and women. Sometimes this equality has been a matter of law as well as of fact, but, oftener, the contrary. Religion among the Greeks, and policy among the Romans, condemned women to legal inferiority. In England, the feudal system, under which the land was held on condition of military service, explains the extreme legal subordination of women. When that system flourished, land and its appurtenances constituted what is still called "real" property; so that personal property, now so important, cut a very small figure in law, as it did in fact. After the system had passed away, the legal disabilities of women, due to it, remained. That they remained so long is evidence that they were not, in general, severely felt. The actual relations upon which men and women live under any system of law, are influenced much more by morality and affection than by the law. Furthermore, long before the days of married woman's property acts, marriage settlements, and the enlightened action of courts of equity, had relieved women from many of the practical hardships of the worn-out feudal system.

It was the entry of women into the business world that gave occasion, in England and America, for the married woman's property acts. Business activity among women could not be confined to single women, yet if married women were to share in it, they must be free to apply their means and capacities to their business ventures. The property they brought into, or acquired during, marriage, was their capital, and it was therefore released from the husband's control and rescued from the hazards of his own business. All business relations are based upon contract—that is, upon an express agreement, pursuant to which a matter of business is conducted, or upon an implied agreement, derived by the law from the conduct of the parties—so that, in order to do business, a married woman must be free to make express agreements, or to have implied agreements imputed to her, or to the other party for her benefit, by the law. Such, in short, is the story of the emancipation of women on the business side of their lives, for their domestic subordination in marriage is retained, and they have not yet been admitted to political equality with men.

Women, like men, are constantly under the law. This is equally true in a savage tribe, a barbarous community, or a civilized state. A man or woman would have to lead a solitary life in some wild and untenanted region, in order to live free of human law. To live in association is to be subject to an external constraint, compelling one sometimes to do what he wishes not to do, and at other times to refrain from doing the thing that he desires. This constraint is the force of the whole community exerted against one of its members.

The law human has many aspects, varying according to time, place,

and circumstance; but it possesses a single soul. Its animating principle is that each individual shall pursue his happiness in his own way, without interfering with the right of every other individual to do the same. The object of the law, then, is freedom, and freedom consists in what has been aptly termed "regulated selfishness." Unregulated selfishness would be freedom only for those so fortunately placed as to command all their desires; for those whose equal rights should be thereby invaded, it would be slavery. Anarchy proposes that each individual shall pursue his happiness in his own way, without interfering with the equal right of every other individual; and to that extent it runs side by side with the law. But whereas the law uses the combined power of all for the protection of each, anarchy proposes to leave the protection of all to the innate goodness of each individual. Its argument is that authority and force have produced the minimum of freedom and justice, with the maximum of tyranny and injustice; so that individualism could not possibly do worse, and ought to have the opportunity to show that it could do better. The counter-argument for legality is that the law fails, in operation, to attain its theoretical perfection because of the native defects of the human character, and that the average conscience of the community, represented by its common authority, and working by its collective force, is a better reliance than a system which would leave the good individual to overcome the bad individual, if he could, by his own authority and might.

No doubt the defective working of the law is the cause of much of the popular complaint against legal arrangements and methods; but those who rail at law and government are but feeding the flame of anarchy. For there is no alternative between letting the community govern the individual as best it can, and allowing the individual to dominate the community even to his worst. Even in a state of anarchy, women would have their chance; because among the human kind, however low the social scale, brute force has never alone prevailed. But anarchy, as an experiment in government, is centuries away at the earliest, and meanwhile, as vacancy is impossible, law must hold the field.

The law is of particular interest to women because, while it has subjected them to men whenever and wherever the general good has required, it has shielded them from abuse of the subjection, and has relieved them from it as far, and as fast, as the public interest has permitted. It also equalizes to them their lack of physical power in comparison with the other sex. Their influence for good upon that sex is a powerful means for bettering the operation of the law, which is perfect in theory and intention, but incapable of reaching its own

standard in practice, so long as the human agencies for working it are below the standard.

This phrase, "the law," is a collective term for all the laws that at any time are in force within the limits of a community. A law is a rule of conduct, prescribed by a superior to an inferior, and enforced by the power of the superior. This power of enforcement is what distinguishes a law from those moral precepts that practically regulate so much of the conduct of conscientious, orderly people toward one another. But the force behind morality is either religion, a good conscience, or public opinion, and where those fail, and the law falls short of the requirements of morality, there is no remedy. The law is made for the average needs of the community, and its force can be directed only to the persons or goods of offenders against it, whereas morality reaches to the nicest and most delicate relations between one person and another, and neither hanging, imprisonment, nor seizure of goods can turn a blunt conscience into a tender one. Women, with their finer feelings, are peculiarly apt to suppose that whatever an individual ought to do, the law requires him to do; and much of their distrust of law as a protection or remedy arises from their ignorance of where the law ends and morality continues the journey alone. For while all law is morality, all morality is not law. A lady goes to a jeweler and tells him that she wishes to buy a diamond ring. He is morally bound to offer or to sell her nothing but a ring set with a genuine diamond. Legally, he may show her a ring set with an imitation diamond, and may praise its brilliancy and purity and express all sorts of extravagant opinions about it. When he has done talking, there are two legal courses open to the woman. She is at liberty to exercise her own judgment upon what she has seen and heard, and to complete the purchase accordingly. Or she may tell the jeweler that she means to buy the ring in reliance upon what he has said about the genuineness of the diamond, the fashionableness of the setting, the fairness of the price, or any other representation that might reasonably affect the mind of an intelligent person; and then, if he permits her to complete the purchase, he stands in law as warranting the truth of all the representations of fact upon which she has told him she is relying. Mere matters of opinion he does not warrant, for he may have believed what he said about the ring being worth more than he now asked for it. But if she tells him that she is buying upon his statement that he is offering the ring to her for twenty-five dollars less than he had ever before offered or sold a ring of that kind for, and he then completes the sale, he has guaranteed that he is selling that ring to her at twenty-five dollars less than its fair, local market price. If the representation proves false, and it turns

out that he has sold such rings for twenty-five dollars less than the price to her, she cannot legally set aside the sale, nor get back from the jeweler fifty dollars of the price paid. But she can recover the excess of twenty-five dollars, because that represents the exact amount of her reliance upon the statements of the jeweler as to the question of value. The law will not go further than the reason of the case, and the diligence of the person invoking its aid, requires. Much of the shopping of women these days is done at bargain stores, or on bargain days, or at bargain counters, or as to bargain lots or remnants. The law of warranty applies to these transactions, but if shoppers generally attempted to exact warranties, there would soon be an end of bargains. A shopping bargain, in general, consists in the purchase of something not particularly wanted at a price above its present value to the purchaser; but bargains are profitable to the one party, and pleasing to the other, and as profit is pleasure and pleasure is profit, it is self-evident that bargains are good things all around, and that the law need not concern itself about them further than to bestow upon them a benevolent smile.

The efficiency of a law depends upon the degree of success attained in enforcing its penalty upon violators. Morality finds its strength in conscience and feeling, and in many cases, these operate so powerfully as to surpass anything that mere law might hope to achieve; as when a man does right because to do wrong would fill him with intolerable remorse, or because he dare not face the reproach of those in whose esteem he lives. But a law without a penalty would be an engine-boiler without steam, and a law with a penalty that could not be enforced, or that could be only occasionally enforced, would be like a boiler incapable of converting its water into steam. Many laws nominally existent lack steam and steaming power, and are therefore practically obsolete. This is because they are grown out of date, or because they have lost the support of public sentiment. Out-of-date laws are many of the so-called blue laws for Sabbath day observances, for people in general do not now regard, or spend, Sunday as was the custom in former times. When public sentiment turned against capital punishment for a multitude of comparatively petty crimes, judges and juries ceased in great measure to enforce the law. The law was finally altered, not so much to save sheep-stealers and cut-purses from being hanged, as to do away with the clumsy evasions of the letter of the law, and with the injury done to the popular spirit of legality by retaining laws that shocked the public conscience.

In free countries, public feeling both molds the law and gives it vigor, and in matters that concern the domestic relations, the feeling

of women has long been potent, probably more so than if they had been directly engaged in politics. The too easy divorce laws of some of the states are due to the resolve of mismated wives to free themselves from a condition that bears more hardly upon them than it possibly could upon mismated husbands. When women began to take to business and business employments, their agitation to be put on a proper footing bore fruit for them in the long series of new laws that have brought women up to the legal business capacity of men. Public law insures public security, and never can become the agent of public oppression. It sometimes bears heavily upon individuals, but even then very often through their own default.

When a despotic authority makes and enforces the law of the community, it nevertheless works feebly if the community, as a whole, is opposed to it. A law really works less in accordance with its form than with its spirit, and its spirit is what the public feeling about the law makes it.

Borne upon as they are by the law, both as members of the general community and in some special characters of their own, women should understand that the laws under which they live are not the fancies of theorists, the whims of dreamers, the devices of self-seekers, or puzzles invented by a professional class which lives by the law. Such laws are constantly being brought into existence, but they perish as soon as public sentiment gets a grip upon them. The laws under which a woman lives in her own country and community are such as the general sentiment approves and enforces, and are therefore worthy of her examination and support. In the time of the Civil War, government in both the North and the South, was tyrannical, and taxation was merciless; but the tyranny and exaction were under legal forms and had the popular support, so that they worked with ease, and vanished speedily with the occasion that gave them birth. It is the popular will that gives such marvelous command to an American or British government, over the persons and fortunes of its citizens in time of public crisis or peril; and because the popular will falls away from extraordinary measures when the emergency has passed, the governmental powers shrink to their old proportions without a jolt.

The greater part of the law that regulates personal and property relations has grown out of popular customs. When a custom has become general, ancient, and unquestioned, it passes into the body of the law. In this way, the law is always growing and constantly changing, this growth and change enabling the law and the people to jog along side by side. At the same time, growth and change are so gradual that they are not perceived; so that, on the surface, the com-

mon law, as this law derived from custom is called, seems as imperious as granite, and every case appears to be decided under the same law that would have applied to it a century earlier. Every now and then, some judge of eminent distinction declares that to be part of the common law which never has been such; but the authority of the judge, and the sense and justice of the declaration, carry the fiction through. The decision becomes a precedent for the next similar case, and so precedent follows precedent, until nothing but an act of Parliament or Congress, or of a state legislature, could repeal or alter the "judge-made law." Partly in this way, and partly by giving clear legal definitions to the usage of merchants, the great Lord Mansfield, sitting in the Court of King's Bench, or on appeal, almost created the body of commercial law now existent in England and in America, at a time when the tide of English commerce was rising faster than the landed gentry, then composing the British Parliament, could pretend to deal with it. The constitutional law of the United States is largely the creation of the illustrious Chief-justice Marshall. That judges should make law, under the guise of applying the law already made, has always been an offense in the eyes of many legal commentators; but it seems to have been always one of the modes in which the law has kept pace with human development. Judges, too, are often unconscious that they are in effect invading the field of legislation.

The subjection of women was affected by the common law, and their emancipation has been brought about by legislative acts, called statutes. But in the application of these statutes to cases arising under them, the courts often resort, of necessity, to common law principles, so that it is never possible to trace or to keep any fixed line of division between common and statute laws.

The mixed origin of the law; its incessant modification; the nicety and delicacy of its application, so as to keep it steady and consistent; the necessity of separating it from those merely moral precepts to which the popular mind is sure to run; the extent to which it enters into all the relations of life and society, and the impossibility of finding a working substitute for it, render it certain that the conception of a happy community, free of lawyers and lawsuits, must remain a baseless dream. So with the modified conception of courts of justice having procedure so simple and expeditious that the parties can sit down to a five-minute informal talk with the judge, and go off to lunch together after receiving his decision. Even the good Haroun al Raschid, sitting on his divan in the hall of audience, could only occasionally dispose of a case in that way. The mass of litigation in his day followed very much the present-day course.

The true relation, therefore, of unprofessional people toward the law under which they live, is that they should know its fundamental principles, and that experts on the bench and at the bar, should apply those principles to particular cases.

The law operates on a woman in one of four ways—that is, it operates to protect some right affecting her person, or to constrain her to the performance of some personal duty, or to defend her right in or to property, or to enforce the right of some other to or in her property. Some of her personal rights accrue to her in the character of daughter, wife, or mother; but, like every other member of the community, she is entitled to legal security of life, limb, liberty, health, and reputation. Some of her property rights accrue to her in the character of wife, but as a member of society she has the same right to security of property as has any other member. As daughter or wife, there are legal obligations resting upon her, and so there are in her character as a citizen or resident. As a wife, her separate property is liable for her separate debts, and when not a wife, her creditors or other claimants, have the same right to have their lawful demands satisfied out of her available property as in the case of any other person who owes them a debt, or who has done them an injury of a kind that can be measured in money.

The special laws made for women are not laws of favoritism, for equality is one of the foundations of the law, as reason is the other. But like special laws made for other classes, as minors, lunatics, seamen, or absentees, the object of laws expressly designed for women is to lift them to the general state of legal equality, should they happen to fall below it. Such laws, therefore, when made, become at once a part of the body of the general law. The theory that all are alike before the law does not, because of faults and defects in human character, always work out in practice, but the principle is always present in every case, and, in the great majority of cases, really operates. When slavery had a legal existence in the United States, slaves were not the legal equals of freemen, for if they had been, they could not have been slaves.

Legal equality found its earliest, and has reached its fullest, development in the United States; but in all countries having constitutional forms of government the tendency is toward the like degree of equality. In Great Britain, there are still legally privileged classes, but they are mere historical survivals, and do not practically trench upon the principle of equality. Even when class privilege was a real thing, the sturdy doctrine prevailed that every man was to be tried by his peers, whether baron, ecclesiastic, or commoner, and this is the very essence of equality. The British sovereign is

not under the law, because in legal theory the sovereign is the source of all law and cannot try himself or herself, or decide his or her own cause. But an order, command or decree, issued by the sovereign, and not countersigned by a minister who is under the law, is waste paper without value except to collectors of autographs.

King James I., a shrewd and scholarly, though a slovenly, man, finding that the Court of King's Bench was the king's own particular court, strolled into Westminster Hall one day and seated himself on the bench. He was received with proper respect, after which, desiring that the business move, he was informed that business could not be done in so august a presence. Having a strong desire to get a hold on the judicial power of the kingdom, an end to which he was urged on by some of the handsome but worthless favorites who constantly surrounded him, he sought to brave it out; but the stony and deferential silence of bench, bar, and spectators, was too much for him, and he beat an ignoble retreat. He was certainly within his rights, but being himself outside the law, he had no legal means of vindicating his rights. His son, King Charles I., was compelled to sign the death warrant of his great minister, the Earl of Stafford, convicted in the king's name of high treason, for acts performed by the king's authority and command. Later, the same king, under his family name of Charles Stuart, was convicted of high treason against himself, and suffered the legal penalty of decapitation. From those days, at least, the law has reigned, if the monarch has worn the crown. But to work the law in those ways, and in the many other and commoner ways in which it is now worked every day for the vindication of equality and the enforcement of justice, requires a preparation more deep than could be gained from any book purporting to make every man his own lawyer. The most illustrious example of an untrained man acting as his own lawyer is that of King George III., one of the best kings, and one of the best men in high place, whereof history bears record, and whose early character is admirably sketched by Sir Walter Besant in the charming romance entitled "A Fountain Sealed." King George was his own constitutional lawyer, and if his intellect had only equaled his conscientiousness, at the time he tried to solve the problem of how the apple got into the apple dumpling served to him one day for dessert, the world might have gone much better ever since. But his conscientiousness on nice points of law which he was not qualified to decide, lost Britain her American colonies; gave those colonies a bias toward violence from which they have never fully recovered; made an only occasionally-bridged gulf between the motherland and her children; planted still fruitful seeds of hatred between Britain and Ireland, whose mutual friendship is necessary to

the happiness of both; and, till the time that he was made harmless by insanity, brought England to her lowest ebb, and saddled upon the British people a staggering national debt. True, his conclusions were often embodied in acts of Parliament, but that legislature was then controlled by the influence of the Crown. That was why Jefferson, a highly accomplished lawyer, made King George personally responsible for all the grievances set out in the Declaration of Independence.

WOMAN UNDER THE LAW

HUMAN NATURE UNDER THE LAW—THE LAW OF HUSBAND AND WIFE—HUSBANDS MAY NOT ENTAIL UNNECESSARY HARDSHIP ON WIVES—THE NECESSITIES AND LUXURIES OF EVERY-DAY LIFE—THE LAW OF DIVORCE—WHAT CONSTITUTES MARRIAGE—A WIFE'S CONTROL OF HER INDIVIDUAL PROPERTY—MARRIAGE LAWS AMONG THE LATINS—COURSE OF INSTRUCTION AT BUSINESS COLLEGE ADVISED—BUSINESS SUGGESTIONS FOR WOMEN.

FROM the cradle to the grave, the law lays its hand upon, and sometimes puts its shield over, Woman, in her several characters of daughter, sister, spinster, wife, mother, and widow.

As a daughter, the woman is legally under parental control and discipline during her minority; her father is legally entitled to exact from her any service reasonable in nature and extent; her earning capacity and her actual earnings are the property of the father; he has the first claim to guardianship of her independent property, unless donors or courts otherwise order; in her defense or protection he may lawfully do all that she might do, if of full age and unmarried; generally, though not universally, he is bound to support her during infancy, conformably to his means and circumstances; and, where education is compulsory by law, he is bound, under penalty, at least to send her to the free public school for the minimum period in each year, and up to the least age permitted for withdrawal.

As a sister, her legal relations are very few, consisting mainly in being an heir to brothers and sisters who die intestate and without children, and in their being heirs to her under like circumstances. But though, in most concerns, she is legally no more to a brother or sister than is a stranger, it is impossible to get judges or juries, when their conscience or sympathy is touched, to ignore the human ties of common parentage, if there is any possible flexibility in the application of the law to the facts of a case. Everybody knows that there are

some verdicts that no jury will render, because human nature is stronger than the law; and so there are judges who, without directly breaking the law, will conduct it to a rational conclusion, agreeable to the common feelings of mankind. Thus, there may be said to be an unwritten law of brothers and sisters, the particulars of which no man knoweth, but the principles of which are latent in the human breast, whence they spring to life and action when some strong occasion calls forth the cry: "We cannot deal with this woman as a stranger to the son of her own father and mother." And as with brother and sister, so with sister and sister, under the like conditions. The general law, being made for all, under all conditions, must sometimes, bear hardly in cases that the wisdom of the lawgiver could not have foreseen; and when the weight of its severity becomes intolerable to the common sentiment of humanity, it is the law, and not humanity, that gives way. This is the safety-valve that assures the continuous power and achievement of the law.

As a spinster, which is the legal term for an adult unmarried woman, a woman is legally, in her civic relations, in the position of an adult unwedded man, though, in general, she is inferior to him in her political relations. Wherefore, since politics form no part of the present matter, nothing more needs to be said of women as spinsters.

In her character as wife, woman is the junior member in a partnership the most important in the world, and the relations of which constitute the greatest topic of the civic law. *Baron* and *Femme* is the ancient title of this branch of the law; the modern title is Husband and Wife, and the change is far more than one of words and phrases. In the days when the man was a *Baron*, he was not only the predominant partner, but practically the whole firm. Some touch of religious veneration, some recognition of the illogical position into which the law would fall by entirely and always ignoring a separate existence of the wife, for any purpose, probably saved the name *Femme* to the title dealing with the marriage relation. At all events, the name was saved, as evidence that if two were generally one, the one was occasionally two; and now, instead of lying at the feet of the husband in a legal sense, the wife stands erect by his side, and, on the whole, the world is better for the change. As the law of husband and wife is of vast importance, so is the literature of that law vast, and only a mere suggestion of what the marriage relation imports can here and there be given.

As a mother, the law touches woman very lightly; but the omission is abundantly supplied by the operation of natural affection between mother and child. Even in its narrow sphere, the law is only exceptionally called upon to interfere with perversity in nature. During

minority, the child belongs to the father, and after minority, to itself, leaving but small room for a legal position for the mother. Yet she has some rights and some duties, to be considered in their proper place.

A widow goes back to the legal condition of an adult unmarried woman in relation to her own affairs, and, in addition, has certain rights in, and concerning, the deceased husband's property, and some privileges respecting the custody and care of young children left fatherless.

Thus, in a rapid way, has been indicated the manner wherein the law concerns itself with a woman as a woman, from birth to death, through all the successive or intervening stages of her life.

Wives and mothers have certain legal rights, and are charged with certain legal duties. A wife is entitled to support by her husband, in all respects in a manner suited to his social position and his means, and if he does not suitably provide for her, she has the right to obtain whatever she reasonably needs, wherever she can, at his expense. He cannot escape his liability by advertising that he will not be responsible for debts contracted by her; but whether he advertises or not, whoever supplies a wife, with expectation of being paid by the husband, must be satisfied, either that she has authority from the husband, or that he is neglecting his duty to suitably provide for her. For the husband who, in any manner, performs his legal duty of suitably supporting his wife, cannot be held liable for debts contracted by her for alleged necessities that he has already provided for or furnished. When a husband and wife are living together, she is his lawful agent for procuring ordinary supplies and services for the household and family, and if he wishes to deprive her of this authority, he must notify the tradesmen who have been accustomed to receive her as his agent, and must use reasonable diligence in ascertaining the persons to be notified.

It is the legal duty of a wife to live with her husband, giving him her presence, society, services, and all reasonable assistance in household and family affairs. But the law does not require her to live with him if he fails or refuses to supply her with such a home as his position and means would readily afford; nor in or at a place where her life or health is unreasonably endangered; nor if he treats her with physical cruelty, habitual neglect, aversion, or insult. For a wife is legally entitled to the society, services, affection, and respect, of the husband, and to such physical comforts of living as he can reasonably supply. The law does not require her to live in unnecessary hardship, misery, danger, or fear.

In this or in any other statement of the legal relations of persons

or things, intended for people not learned in the law, the terms "reasonable" and "reasonably" are likely to be used with great frequency. The cause of this is that the law, in theory, is the perfection of common sense, however it may be marred in operation by the defects of human nature. The voice of the law continually speaks for what is reasonable under the special circumstances of a particular case. For example, a tradesman might legally make a rich man pay for diamond jewelry supplied to the wife; but the poor man could not be compelled to pay, against his own consent, for so much as a modest breastpin. To a rich man's wife, legally entitled to live as rich ordinarily do, diamonds may be a "necessary" of life which the husband is legally bound to provide; but neither the habits nor the means of the poor enable them to regard jewelry otherwise than as a luxury, and no husband is legally bound to provide his wife with luxuries. Carry the principle of this example into all the relations of life, and the law ceases to be mysterious, or complex. In the common affairs of life, people often worry over what is or what is not legal in relation to a certain matter, or over the manner in which something desired to be done may be legally performed. In the vast majority of such cases, a practically safe and serviceable guess could be made by considering what common sense would decide after hearing all the facts of the case. This remark is intended to apply to all that may be said herein concerning the legal relations of women.

A wife living apart from her husband by express agreement, or through his tacit consent, or because his conduct forces, or warrants, her to separate from him, is entitled to be supported by him, or to arrange for her own support at his expense, unless she has agreed to release him from the obligation. But her conduct must be exemplary during the time that she holds him to the duty of supporting her.

When a husband and wife are living apart, without legal fault on her side, the wife is entitled to the custody of children so young as particularly to require her maternal care, and to reasonable access to children old enough to be retained by the father. It would be a violation of her legal rights for the husband to excite their children to hatred or contempt of her. The law looks upon the married state as the very foundation, in a wordly sense, of the happiness, prosperity, and stability of a community or nation, for which reason it takes extraordinary care to prevent a rupture of marital relations from within, or disturbance of them from without; judges almost universally administer the law of husband and wife with special care and fidelity.

The law of divorce varies in details in the several states, but it is everywhere founded upon the principle that when the object of marriage is hopelessly defeated in a particular case, it is best to free

the innocent party from the wreck, with legal opportunity and privilege to make another adventure. Where the wife is the innocent party, her legal right to support remains, and is regulated by the divorce court, and she has the right to the custody of young children, whose support is a charge upon the father. If she remarries, the new husband relieves the former one of the legal duty of her support.

A limited divorce is another name for a legal separation decreed by a court, but in common speech, a divorce means a dissolution of the marriage itself. In either case, the property rights of the severed couple are adjustable by the court, to fit the new circumstances of the parties. If a separation be all that is needed or desired, the husband and wife may make their own arrangement, if they can agree without going to court.

The law, in some states and in some cases, forbids the remarriage of the offending party. Yet the forbidden party may make a legal remarriage elsewhere, which will be recognized throughout the United States, except that the prohibition may be enforced in the state where it originated, as to property or property rights within the control of the law of that state. A national law of marriage and divorce is a crying necessity, but is an impossibility under present circumstances.

In law, marriage has nothing to do with religion, so that whenever religious ceremonies or observances attend a marriage, the important thing, with regard to the future, is that the legal requirements of the place where the marriage occurs should be followed. In general, the intention of both parties to be married to one another, followed by open living together as husband and wife, will, in course of time, and for most purposes, cure informalities in the original proceedings, by raising a legal presumption that somewhere, at some time, the parties became lawfully married. For marriage is not made by any ceremony or formality, but by the living of the couple together as husband and wife. The true object of a marriage law is to compel the parties to take such a course as will produce an authentic, legal record of the marriage, for future use whenever needed. This may be a certificate by the officiating clergyman or magistrate, delivered to the wife; or an entry in church records, or among the public archives.

A wife who has reason to fear that, at some future time, the fact of her marriage may become the subject of serious denial or doubt, should take immediate measures to avert the possibility of such a danger. If she has her own marriage certificate, but is uncertain that there is also an official record of the marriage, she can guard against the consequences of loss or destruction of the certificate, by getting a careful and intelligent notary public properly to attest a copy, or

even two copies, of the certificate, and by placing the copy or copies where there is a reasonable assurance of preservation, if the original should be lost or destroyed. At every county seat, there is a public office for recording deeds of land, and usually the officer in charge will record and index any document which the holder desires to have recorded as a precaution against loss of its contents. If the anxious wife has no certificate to be copied or recorded, and her husband sympathizes with her fears, they can make a joint written declaration of the facts of their marriage and cohabitation, and have that recorded among the land records. Speaking generally, however, there is seldom any great difficulty in proving that a real husband and wife are a married couple.

Speaking generally, again, the rights of a married woman concerning her own property are now as great as the rights of a single woman. But to avoid trouble with her husband's creditors, in case he should become insolvent, she should, by writings carefully preserved, and by the knowledge of eyewitnesses, be able, at any time of business calamity to him, to show that what she claims as her property is really her own. A husband able to pay his debts may lawfully make gifts to his wife, without their subsequently becoming subject to the demands of his creditors; but he may not pretend to make his own property the property of his wife, for the purpose of defrauding his creditors.

Sometimes the property of a wife, not derived from the husband, has been used or consumed by him, in his own affairs, without her knowledge or consent. In this case, the proper court will decree restitution of the value to her from his property, but not to the injury of any creditor who, upon the particular facts of the case, has a just claim to be first satisfied.

In general, a married woman may now carry on business for herself, in her own name, for her own profit. But this right does not impair the right of the husband to her society and services as a wife, for good wives and mothers are needed by the community and the nation more than are good women of business. The majority of women must still look to domestic life as the sphere of their usefulness and happiness. What the law has recently done for married women is to give them legal opportunities for self-dependence and self-help, in cases where marriage has failed suitably to provide for them; and also in cases where, without injury to the family interests, their industry and talent may enlarge the family means and increase the general welfare. The husband is still lord of the household in law, but the law has opened a way to a wife, who is able and willing to do something for herself or for her children—in order to provide

against the misconduct, folly, incapacity, or misfortune of the husband — to make the attempt in legal security. In short, while the husband and wife, for the beneficial purposes of their union, remain one, they have become two in matters not necessary to the success of that union, and in cases in which to be only one might cause or increase mischief to the wife, to the family, or to the state.

A wife surviving her husband is legally entitled to the use or benefit of not less than one-third of his real estate for her life, and, in general, to not less than one-third of his personal property absolutely. In some of the states, she shares equally with the children in the personal property. Should the husband leave a will giving her less than the law allows, she can renounce the will and take her legal share. In the unusual case of a failure of any heir of the blood of the husband, and in the absence of a will, she may take the whole estate. Where there is no will, she is entitled to administer the estate under direction of the proper court, and if she does not choose to administer in person, she has the right of presenting to the consideration of the court the person whom she prefers as administrator.

The husband being the legal head of the family, a wife's legal rights and duties concerning the children are not numerous. The modern tendency of the law, however is to bring her toward an equality with the husband in matters affecting their children. If the father's conduct to, or management of, the children is deemed by her materially injurious to them, she can apply to court for a remedy. She is not bound to support the children and, in general, they are not bound to support her. But in all circumstances, except that of her own misconduct, she is entitled to the personal care and supervision of such children as are too young to be reasonably separated from their mother. In general, too, when she becomes a widow, she is entitled to be the guardian of the persons of the children under age, whomsoever else may be the guardian of their property rights.

It is always to be remembered that the important working relations of husband and wife must rest upon mutual affection, the golden rule of life, and fidelity to the principles of morality. Careful and anxious as the law is to strengthen and safeguard the marriage tie, the best it can do is to provide, in a comparatively rough and ineffective way, against the grosser forms of abuse of the marital obligations.

Among the Latin nations, marriage is regulated by the law of community—that is, husband and wife each retains what he and she possessed at the time of marriage, and are joint and equal owners of all property acquired during the marriage. Such a law necessarily leads a wife into a considerable familiarity with business affairs, and

American visitors to France and other Latin countries are often impressed by the extent to which women participate in the business of their husbands and by the success of widows in carrying on a business that in England or the United States would be broken up by the husband's death.

In England and in the United States, until quite recent times, the marriage laws so completely merged the wife and her affairs in the person and property of her husband, that she had no inducement, and but scant opportunity, to become apt at business. But the effect of the present self-dependence of women in general, and the laws relating to the property rights of married women, is already marked. A woman of business is now no more of a curiosity than is a man of business, and the old notion that a woman could not be domestic or womanly, if she had interests or talents beyond the household or the social circle, is dying out. So far, however, the majority of American women belong to the class that has but little theoretical or practical knowledge of business.

The legal and business incapacities of women for the acquirement of money would have made them the weaker sex, had there been no other grounds for their weakness, in comparison with men. Now; their legal incapacities are gone and the capacities of business are open to them. They are free to acquire, to employ, and to increase, money, if they can. But they must learn how to get, how to keep, and how to use, money, before they can exercise its power. In other words, they must have knowledge and method, or they can neither get, nor keep, nor use, the thing desired.

A very good preparation for a woman who would engage in business is a course of instruction at a business college or academy. Such a course can be taken, even by an adult woman, without much inconvenience, expense or consumption of time. Every large town has at least one such college, usually with day and night sessions, and always with enough adult pupils to prevent any grown person from feeling out of place. Business law is a part of the course, and if afterward supplemented by careful reading in some good manual of the laws of business, it will afford to a business woman as much knowledge of business law as she can profitably use.

Ignorance of business laws and of business methods makes women great seekers after advice. This is natural, and to the world's credit be it said that there is courtesy and good feeling enough to make such application agreeable to both sides. Lawyers are greatly given to consulting one another, and in so doing they have three practical rules that inexperienced women should try to adapt to their own situation. First, it is understood on both sides, that an opinion given

"off-hand" is never to be made the basis of serious action. Secondly, if the consulter means to act seriously on the advice he seeks, he always goes to a brother lawyer, whom he knows to be well qualified to advise him on the particular matter. Thirdly, if the matter is really important, and the advice desired is to be taken very seriously, the consulter tries to work at least a small consultation fee into the case, even when he knows that he is welcome to all the information that his brother in the law can give him. This third rule would seldom apply to an ordinary case of a woman seeking friendly advice, but the two others should never be disregarded.

In their legal character, women have already been classified as daughters, sisters, spinsters, wives, mothers, and widows. The same classification can now be used for a few business suggestions.

Daughter.—As a minor, let the mother consider possible investments for her future benefit, such as a moderate insurance on the life of father, mother, or older brother; or a villa site in a promising suburb that will cost little for taxes, and that may become city lots by the time she has grown and can profitably use the value of it. Or, a modest but regular weekly or monthly deposit in a savings bank is advisable, with the interest added to the principal and the whole allowed to accumulate. As she becomes old enough, a business education or training would aid in making her independent. As an adult, the daughter should think upon little investments to provide for the old age of her parents, or for the aid of younger brothers or sisters until they become self-supporting, or possible contributions by her to the family income. If she has been brought up to business, she will have less vanity and love of dress, and less eagerness for marriage as a means of support.

Sister.—As a minor, income-earning brothers and sisters, or well-married sisters, may do for her the things indicated above, and which the parents may be unable to do. As an adult, if self-supporting, and something over, she may help to prepare younger brothers or sisters for self-support; may look after their business or property interests, and help them to first employments.

Spinster.—If a daughter or sister, then, being an adult, her possible aids to the family have already been indicated. As to herself, being self-supporting and accumulative, she can marry or not, as affection or interest dictates, and if married unfortunately, she can again look out for herself.

Wife.—If trained in business, she may help her husband, or perhaps make separate accumulations for herself, or to aid him or the children. If expert at business, she can afford to employ domestic help to do the details of household-work under her oversight. She can

use business habits in household management, and so earn largely by saving largely.

Mother.—In this character she may look out for the future of the children, investing, or causing the father to invest, for their benefit, or for any needing special provision because of constitutional weakness or other defect. She may help to provide against disaster to the family from the death or misfortune of the husband. By incidental conversation in the family circle, she may give to the children a bias toward business, and make them familiar with fundamental business principles.

Widow.—Herein, she may take the deceased husband's place, conserving his business or estate; looking after her own interests and those of her children. If his affairs can be settled without legal proceedings, she may settle them, or if by reason of a will, or doubtful debts or claims, or other cause, legal proceedings are necessary, she can go personally to the probate court, and need not call in a lawyer until one be necessary.



WORDS AND PHRASES OF FOREIGN LANGUAGES

A

À, à (*Fr.*), according to; after the manner of; to.

À bas (*Fr.*), down with.

Ab extra (*Lat.*), from without.

Ab initio (*Lat.*), from the beginning.

À bon marché (*Fr.*), cheap.

Ab origine (*Lat.*), from the beginning.

Absente reo (*Lat.*), the defendant being absent.

Absque hoc (*Lat.*), without this.

Ad astra (*Lat.*), to the stars.

Ad astra per aspera (*Lat.*), To the stars through difficulties—the motto of Kansas.

Ad Calendas Græcas (*Lat.*), at the Greek Kalends; never, as the Greeks had no Kalends.

Ad eundem (*Lat.*), to the same degree.

Ad extremum (*Lat.*), to the extreme; at last.

Ad finem (*Lat.*), to the end.

A die (*Lat.*), from that day.

Ad infinitum (*Lat.*), to infinity.

Ad inquirendum (*Lat.*), for inquiry; a writ authorizing inquiry to be made.

Ad interim (*Lat.*), in the meantime.

Ad libitum (*Lat.*), at pleasure.

Ad nauseam (*Lat.*), so as to disgust.

Ad rem (*Lat.*), to the point; to the purpose.

Ad summum (*Lat.*), to the highest point or degree.

Ad utrumque paratus (*Lat.*), prepared for either event.

Ad valorem (*Lat.*), according to value.

Affaire d'amour (*Fr.*), a love affair.

Affaire d'honneur (*Fr.*), an affair of honor; a duel.

Affaire du cœur (*Fr.*), an affair of the heart; a love affair.

À fin (*Fr.*), to the end.

À fin de (*Fr.*), to the end that; in order that.

À fond (*Fr.*), to the bottom; thoroughly.
A fortiori (*Lat.*), with greater reason.
À gauche (*Fr.*), to the left.
Agnus Dei (*Lat.*), Lamb of God.
À haute voix (*Fr.*), in a loud voice.
Aide-toi, et le Ciel t'aidera (*Fr.*), Help yourself and heaven will help you.
À la bonne heure (*Fr.*), early.
À la campagne (*Fr.*), in the country.
À la française (*Fr.*), after the manner of the French.
À la mode (*Fr.*), in fashion; according to the custom.
Al fresco (*It.*), to the shade; to the open air.
Alias (*Lat.*), at another time or place; elsewhere; otherwise.
Alibi (*Lat.*), elsewhere.
Alis volat propriis (*Lat.*), She flies with her own wings—motto of Oregon.
Allons (*Fr.*), let us go; come.
Alma mater (*Lat.*), a kindly mother. Used of the college or university from which one is graduated.
Al più (*It.*), at the most.
Alter ego (*Lat.*), another self; a double.
Alter idem (*Lat.*), another exactly similar.
Amende honorable (*Fr.*), satisfactory apology.
Amour propre (*Fr.*), self-love; vanity.
Anglicè (*Lat.*), after the English manner.
Anno Christi (*Lat.*), In the year of Christ.
Anno Domini (A. D.) (*Lat.*), In the year of our Lord. [world.
Anno mundi (A. M.) (*Lat.*), In the year of the
Anno urbis conditæ (A. U. C.), In the year the city was built. (Rome, 753 B.C.)
Annus mirabilis (*Lat.*), The year of wonders.
Ante bellum (*Lat.*), before the war.
Ante meridiem (A. M.) (*Lat.*), before noon.
Anti (*Lat.*), against.
À peu près (*Fr.*), nearly.
À pied (*Fr.*), on foot.
À plomb (*Fr.*), perpendicularly; firmly.
A posteriori (*Lat.*), from the effect to the cause.
Appui (*Fr.*), point of support; prop; purchase.
A priori (*Lat.*), from the cause to the effect.
À propos (*Fr.*), to the point; pertinently.
À rez de chaussée (*Fr.*), even with the ground.
Argumentum ad hominem (*Lat.*), argument to the man (personally).
Argumentum ad iudicium (*Lat.*), argument to the judgment.
Argumentum baculinum (*Lat.*), argument of the stick.
Ars longa, vita brevis (*Lat.*), Art is lasting, life is brief.
Aut Cæsar, aut nullus (*Lat.*), Either Cæsar, or no one.
Auto da fé (*Portuguese*), an act of faith.
Aux armes (*Fr.*), to arms.

B

Beau idéal (*Fr.*), a perfect model of beauty, or a model of ideal perfection.
Beau monde (*Fr.*), the fashionable world.
Beaux esprits (*Fr.*), gay spirits; men of wit.
Beaux yeux (*Fr.*), handsome eyes; attractive looks.
Bête noire (*Fr.*), a black beast; an object of aversion; a bugbear.
Bienvenue (*Fr.*), welcome.
Billet doux (*Fr.*), a love letter.
Bis dat qui cito dat (*Lat.*), He gives twice who gives quickly.
Bis pueri senes (*Lat.*), Old men are twice boys.
Bizarre (*Fr.*), odd; fantastic; vulgar.
Blasé (*Fr.*), surfeited; palled; incapable of continued pleasure.
Bona fide (*Lat.*), in good faith.
Bon ami (*Fr.*), good friend.
Bon gré, mal gré (*Fr.*), willing, or unwilling.
Bon jour (*Fr.*), good morning.
Bonne (*Fr.*), a nurse.
Bonne foi (*Fr.*), good faith.
Bon soir (*Fr.*), good evening.
Bon vivant (*Fr.*), one fond of good living.
Bouillon (*Fr.*), soup.
Bravo! (*It.*) Well done!
Brevet d'invention (*Fr.*) letters patent.
Breveté (*Fr.*), patented.

C

Cacoëthes (*Lat.*), a mania; a habit.
Cacoëthes carpendi (*Lat.*), a mania for fault-finding.
Cacoëthes loquendi (*Lat.*), a mania for speaking.
Cacoëthes scribendi (*Lat.*), a mania for writing.
Cætera desunt (*Lat.*), the rest is wanting.
Cæteris paribus (*Lat.*), other things being equal.
Capias (*Lat.*), you may take;—the initial word of a writ authorizing the arrest and keeping of a person until answer or satisfaction is made.
Carpe diem (*Lat.*), enjoy the (pleasures of the) day; seize the opportunity.
Carte de visite (*Fr.*), a small photograph on a card originally used as a visiting card.
Casus belli (*Lat.*), a cause or reason for war.
Causa sine quâ non (*Lat.*), an indispensable condition.
Caveat actor (*Lat.*), let the doer beware.
Caveat emptor (*Lat.*), let the buyer beware.
Certiorari (*Lat.*), to be made more certain.
C'est-à-dire (*Fr.*), that is to say.

Champs Élysées (*Fr.*), Elysian Fields.
Châteaux en Espagne (*Fr.*), castles in Spain;
 air-castles.
Chef (*Fr.*), the head; chief; the chief cook.
Chef de cuisine (*Fr.*), chief cook.
Chef-d'œuvre (*Fr.*), a masterpiece.
Chemin de fer (*Fr.*), railroad.
Chère amie (*Fr.*), a dear friend.
Chiaroscuro (*It.*), distribution of light and
 shade in a painting.
Cicerone (*It.*), a guide.
Ci devant (*Fr.*), formerly; hitherto.
Ci gît (*Fr.*), here lies.
Cis (*Lat.*), on this side of.
Cogito, ergo sum (*Lat.*), I think, therefore I
 exist.
Coiffeur (*Fr.*), a hairdresser.
Coiffure (*Fr.*), a headdress.
Comme il faut (*Fr.*), as it should be; proper.
Compagnon de voyage (*Fr.*), a traveling com-
 panion.
Compos mentis (*Lat.*), of sound mind.
Comte (*Fr.*), Count.
Comtesse (*Fr.*), Countess.
Con amore (*It.*), with love; passionately.
Con dolore (*It.*), with grief; sadly.
Confrère (*Fr.*), an associate; a colleague.
Conquiescat in pace (*Lat.*), May he rest in
 peace.
Con spirito (*It.*), with spirit; with animation.
Conversazione (*It.*), conversation; a meeting
 for conversation.
Corrigenda (*Lat.*), corrections which must be
 made.
Couleur de rose (*Fr.*), rose-color; beauty or at-
 tractiveness.
Coup d'état (*Fr.*), a stroke of policy, usually a
 radical move.
Coup de grâce (*Fr.*), a finishing stroke.
Coup de main (*Fr.*), a sudden effort.
Coup de pied (*Fr.*), a kick.
Coup de soleil (*Fr.*), a sunstroke.
Coup de théâtre (*Fr.*), a theatrical effect.
Coup d'œil (*Fr.*), a glance.
Cui bono? (*Lat.*) For whose good? What use?
Cum grano salis (*Lat.*), with a grain of salt;
 with some discretion or allowance.

D

De bonis non (*Lat.*), of the goods not yet ad-
 ministered on.
De die in diem (*Lat.*), from day to day.
De facto (*Lat.*), from the fact; of one's own
 right; really.

Dehors (*Fr.*), without; out of; foreign; irrele-
 vant.
Dei gratiâ (*Lat.*), by the grace of God.
De integro (*Lat.*), from the start; anew.
Déjeuner à la fourchette (*Fr.*), a meat break-
 fast.
De jure (*Lat.*), by law; by right.
Delenda est Carthago (*Lat.*), Carthage must
 be destroyed.
De mal en pis (*Fr.*), from bad to worse.
De nihilo nihil fit (*Lat.*), From nothing, noth-
 ing comes.
De novo (*Lat.*), anew.
Deo volente (D.V.) (*Lat.*), God willing.
De profundis (*Lat.*), out of the depths.
Dernier ressort (*Fr.*), a last resort.
Desideratum (*Lat.*), something to be desired.
De trop (*Fr.*), too many; out of place; not
 wanted.
Deus vobiscum (*Lat.*), God be with you.
Dictum (*Lat.*), a decision.
Dictum de dicto (*Lat.*), judgment from hear-
 say.
Dies iræ (*Lat.*), day of wrath.
Dies non (*Lat.*), a day upon which a court does
 not sit.
Dieu avec nous (*Fr.*), God with us.
Dieu défend le droit (*Fr.*), God defends the
 right.
Dieu et mon droit (*Fr.*), God and my right.
Dieu vous garde (*Fr.*), God protect you.
Dilettante (*It.*), a lover of fine arts.
Dîner (*Fr.*), dinner.
Dirigo (*Lat.*), I direct or guide;—the motto of
 Maine.
Distingué (*Fr.*), distinguished; eminent.
Distrain (*Fr.*), absent-minded; distressed in
 mind.
Divertissement (*Fr.*), amusement; recreation.
Docendo discimus (*Lat.*), we learn by teach-
 ing.
Dolce (*It.*), sweet; pleasant; agreeable.
Dolce far niente (*It.*), sweet idleness; luxuri-
 ous ease.
Dolcemente (*It.*), softly.
Doloroso (*It.*), soft and pathetic.
Dominus vobiscum (*Lat.*), the Lord be with
 you.
Double entente (*Fr.*), an equivocal or double-
 meaning phrase;—wrongly written *double*
entendre.
Doux yeux (*Fr.*), soft glances.
Dramatis personæ (*Lat.*), cast of characters in
 a play.
Dulce "Domum" (*Lat.*), "Home, Sweet
 Home."
Dulce et decorum est pro patriâ mori (*Lat.*),
 It is a sweet and becoming thing to die for
 one's country.

Dum spiro, spero (*Lat.*), While I breathe, I hope;—part of the motto of South Carolina.
Dum vivimus, vivamus (*Lat.*), While we live, let us live.
Durante vitâ (*Lat.*), during life.

E

Eau de Cologne (*Fr.*), Cologne water.
Eau de vie (*Fr.*), water of life; brandy.
Ecce homo (*Lat.*), behold the man.
Ecce signum (*Lat.*), behold the sign.
École de droit (*Fr.*), school of law.
École de médecine (*Fr.*), medical school.
École militaire (*Fr.*), military school.
École polytechnique (*Fr.*), polytechnic school.
E contrario (*It.*), on the contrary.
Édition de luxe (*Fr.*), a splendid edition of a book.
Editio princeps (*Lat.*), the first edition of a book.
Égalité (*Fr.*), equality.
Emeritus (*Lat.*), one who has retired from active duties, as a professor.
En arrière (*Fr.*), in the rear; behind; back.
En avant! (*Fr.*) Forward!
En bagatelle (*Fr.*), trifling; contemptuously.
En déshabillé (*Fr.*), in undress.
En échelon (*Fr.*), in steps; like stairs.
En effet (*Fr.*), in effect; really; in fact.
En famille (*Fr.*), in a domestic state; at home.
Enfant gâté (*Fr.*), a spoiled child.
Enfant terrible (*Fr.*), a child who annoys by ill-timed remarks.
Enfin (*Fr.*), at length; at last; finally.
En grande tenue (*Fr.*), in full dress.
En haut (*Fr.*), on high; above.
En masse (*Fr.*), in a body.
Ennui (*Fr.*), weariness; a state of being bored.
En passant (*Fr.*), in passing; by the way.
En queue (*Fr.*), in the rear; behind.
En rapport (*Fr.*), in harmony, or agreement, or close touch, with.
En règle (*Fr.*), in order; according to rule.
En revanche (*Fr.*), in return.
En route (*Fr.*), on the way.
En suite (*Fr.*), in company.
Entente cordiale (*Fr.*), evidences of good will and harmony existing between two states or kingdoms.
Entourage (*Fr.*), surroundings.
En tout (*Fr.*), in all; wholly.
Entre deux feux (*Fr.*), between two fires; in a dilemma.
Entremets (*Fr.*), small, side dishes.

Entre nous (*Fr.*), between ourselves; in confidence.
Entrepôt (*Fr.*), a storehouse; warehouse; magazine.
En vérité (*Fr.*), in truth; truly.
E pluribus unum (*Lat.*), One out of many;—the motto of the United States, which is *one* government formed of *many* separate states.
Erratum, errata, pl. (*Lat.*), an error.
Esprit de corps (*Fr.*), the spirit which animates a body or organization such as the bar, the army, or navy.
Étage (*Fr.*), the story of a house.
Et cætera (*Lat.*), and the rest.
Et sequentes, et sequentia (*Lat.*), and what follows; *et. seq.*
Et tu Brute! (*Lat.*) And you, also, Brutus!
Εὕρηκα, (**Eureka!**) (*Gr.*) I have found it!—the motto of California.
Ewigkeit (*Ger.*), eternity.
Ex cathedrâ (*Lat.*), from the chair or bench; from one in authority;—the decisions delivered by popes and others in authority.
Excelsior (*Lat.*), Higher;—the motto of New York.
Exceptis excipiendis (*Lat.*), proper exceptions having been made.
Excerpta (*Lat.*), extracts.
Ex curiâ (*Lat.*), out of court.
Ex dono (*Lat.*), by the gift.
Exempli gratiâ (*Lat.*), by way of example; *e.g.*
Exeunt (*Lat.*), they go out.
Exeunt omnes (*Lat.*), all go out.
Exit (*Lat.*), he goes out.
Exitus acta probat (*Lat.*), The result justifies the deed;—the motto of Washington.
Ex mero motu (*Lat.*), of his own accord.
Ex more (*Lat.*), according to custom.
Ex necessitate rei (*Lat.*), from the necessity of the case or thing.
Ex officio (*Lat.*), by virtue of his office.
Ex parte (*Lat.*), on one side only.
Experto crede (*Lat.*), take the experience of one who has tried.
Ex post facto (*Lat.*), after the deed is done.
Ex propriis (*Lat.*), from one's own resources.
Ex tacito (*Lat.*), tacitly.
Ex tempore (*Lat.*), without preparation or forethought.
Ex uno disce omnes (*Lat.*), from one learn all.

F

Facetiæ (*Lat.*), jokes; humorous sayings.
Facile princeps (*Lat.*), easily first; the admitted chief.

Facilis descensus Averno (*Lat.*), the descent to hell is easy.

Façon de parler (*Fr.*), manner of speaking.

Facsimile (*Lat.*), make it like; an exact copy.

Factotum (*Lat.*), man of all work.

Faire mon devoir (*Fr.*), to do my duty.

Faire sans dire (*Fr.*), to do without saying; to act unostentatiously.

Fait accompli (*Fr.*), something already done.

Far niente (*It.*), doing nothing.

Fauteuil (*Fr.*), an armchair.

Faux pas (*Fr.*), a false step; a mistake.

Fecit (*Lat.*), he made it.

Femme couverte (*Fr.*), a married woman.

Femme de chambre (*Fr.*), a chambermaid.

Femme de charge (*Fr.*), a housekeeper.

Femme sole (*Fr.*), an unmarried woman.

Ferme ornée (*Fr.*), an ornamented farm.

Festina lentè (*Lat.*), make haste slowly.

Fête champêtre (*Fr.*), a rural festival.

Fête Dieu (*Fr.*), the festival of Corpus Christi.

Feu de joie (*Fr.*), a firing of guns on joyous occasions; a bonfire.

Fiat justitia, ruat cælum (*Lat.*), Let justice be done, though the heavens fall.

Fiat lux (*Lat.*), let there be light.

Fide et amore (*Lat.*), by faith and love.

Fidei defensor (*Lat.*), defender of the faith.

Fides Punica (*Lat.*), Punic faith; treachery.

Fidus Achates (*Lat.*), faithful Achates; a true friend.

Fille de joie (*Fr.*), a woman of low pleasures.

Fils (*Fr.*), son.

Finis (*Lat.*), the end.

Finis coronat opus (*Lat.*), The end crowns the work.

Flagrante bello (*Lat.*), while war is going on.

Flagrante delicto (*Lat.*), while committing the crime.

Fleur d'eau (*Fr.*), even with the surface of the water.

Forsan et hæc olim meminisse juvabit (*Lat.*), Perchance, in after years, it may rejoice you to remember even these things.

Fortes fortuna juvat (*Lat.*), Fortune favors the brave.

Fortiter in re (*Lat.*), firmness in action.

Fra (*It.*), brother; friar.

Frais (*Fr.*), cost; expense.

Franco (*It.*), post free.

Front à front (*Fr.*), face to face.

Fugit hora (*Lat.*), the hour flies.

Functus officio (*Lat.*), his office having been completed; hence, out of office.

Furor loquendi (*Lat.*), a rage for speaking.

Furor scribendi (*Lat.*), a rage for writing.

G

Gallicè (*Lat.*), in French.

Garçon (*Fr.*), boy; waiter.

Garde à cheval (*Fr.*), a mounted escort or guard.

Garde du corps (*Fr.*), a body guard.

Garde-feu (*Fr.*), a fire guard.

Gardez (*Fr.*), take care; be on your guard.

Gardez bien (*Fr.*), take good care.

Gens d'armes (*Fr.*), armed police.

Gitano (*Sp.*), a gypsy.

Gloria in excelsis (*Lat.*), Glory to God in the highest.

Gloria Patri (*Lat.*), Glory be to the Father.

Γνωθι σεαυτόν (**Gnōthi seauton**) (*Gr.*), know thyself.

Grâce à Dieu (*Fr.*), thanks to God.

Grande parure (*Fr.*), full dress.

Grande toilette (*Fr.*), full dress.

Grand merci (*Fr.*), many thanks.

Gratis dictum (*Lat.*), mere assertion.

Guerra á cuchillo (*Sp.*), war to the knife.

Guerre à mort (*Fr.*), war to the death.

Guerre à outrance (*Fr.*), war to the finish.

H

Habile (*Fr.*), clever; skilful.

Hac lege (*Lat.*), with this ruling or condition.

Ἐπαξ λεγόμενον (**Hapax legomenon**) (*Gr.*), said but once (of a rare word or remark).

Haud ignara mali, miseris succurrere disco (*Lat.*), Not ignorant of misfortunes myself, I learn to succor the wretched.

Haut et bon (*Fr.*), high and good.

Haut goût (*Fr.*), high flavor; good taste.

Hic et ubique (*Lat.*), here and everywhere.

Hic finis fandi (*Lat.*), here there was an end of speaking.

Hic jacet (*Lat.*), here lies.

Hic labor, hoc opus est (*Lat.*), Here is labor, here is work.

Hic sepultus (*Lat.*), here is buried.

Hinc illæ lacrimæ (*Lat.*), hence these tears.

Hoc age (*Lat.*), do this.

Hoc anno (*Lat.*), in this year.

Hoc loco (*Lat.*), in this place.

Hoc tempore (*Lat.*), at this time.

Οἱ πολλοί (**Hoi polloi**) (*Gr.*), the many; the rabble; the mob.

Hombre de uno libro (*Sp.*), a man of only one book.

Honi soit qui mal y pense (*Fr.*), Let evil be to him who evil thinks.

Hora è sempre (*It.*), it is always time.

Horribile dictu (*Lat.*), horrible to relate.
Hors de combat (*Fr.*), out of condition to fight.
Hors de propos (*Fr.*), not to the point or purpose; not apropos.
Hors d'œuvre (*Fr.*), out of course; out of order.
Hortus siccus (*Lat.*), a collection of dried plants; a botanical collection.
Hôtel de ville (*Fr.*), the town hall.
Hôtel garni (*Fr.*), furnished lodgings.
Humanum est errare (*Lat.*), it is human to err.

I

Ich dien (*Ger.*), I serve;—the motto of the Prince of Wales.
Id est (*Lat.*), that is; *i. e.*
Ignorantia legis neminem excusat (*Lat.*), Ignorance of the law excuses no one.
Impedimenta (*Lat.*), baggage, especially that of an army.
Impoli (*Fr.*), unpolished; rude.
Impolitesse (*Fr.*), coarseness; rudeness.
In actu (*Lat.*), in act or reality.
In æternum (*Lat.*), forever.
In ambiguo (*Lat.*), in doubt.
In armis (*Lat.*), under arms.
In articulo mortis (*Lat.*), at the point of death.
In camera (*Lat.*), in secret.
In curiâ (*Lat.*), in the court.
Index expurgatorius (*Lat.*), a list of prohibited books.
In dubiis (*Lat.*), in matters of doubt.
In equilibrio (*Lat.*), in equilibrium; perfectly balanced.
In esse (*Lat.*), in being.
In extenso (*Lat.*), at full length.
In extremis (*Lat.*), at the point of death.
Infra dignitatem (*Lat.*), beneath one's dignity; *infra dig.*
In hoc signo spes mea (*Lat.*), In this sign is my hope.
In hoc signo vinces (*Lat.*), By this sign you shall conquer.
In limine (*Lat.*), at the outset; on the threshold.
In loco (*Lat.*), in place.
In loco parentis (*Lat.*), in the place of a parent.
In medias res (*Lat.*), into the midst of things.
In medio tutissimus ibis (*Lat.*), you will go most safely in the middle; a middle course is the safest.
In memoriam (*Lat.*), in memory; to the memory of.
In nomine (*Lat.*), in the name of.

In perpetuum (*Lat.*), forever.
In pleno (*Lat.*), in full.
In posse (*Lat.*), in possibility.
In præsentî (*Lat.*), at the present time.
In propriâ personâ (*Lat.*), in person.
In re (*Lat.*), in the matter of.
In rem (*Lat.*), against the property or thing.
In rerum naturâ (*Lat.*), in the nature of things.
In sæculâ sæculorum (*Lat.*), for ages on ages.
In sano sensu (*Lat.*), in a proper sense.
Insculpsit (*Lat.*), he engraved it.
In situ (*Lat.*), in its proper or natural position.
Insouciance (*Fr.*), indifference; carelessness.
Insouciant (*Fr.*), indifferent; careless.
In statu quo (*Lat.*), in the former state.
In stirpes (*Lat.*), according to ancestry.
Inter alia (*Lat.*), among other things.
Inter canem et lupum (*Lat.*), between dog and wolf, *i. e.*, twilight.
Inter nos (*Lat.*), between ourselves.
Inter se (*Lat.*), among themselves.
In totidem verbis (*Lat.*), in so many words.
In toto (*Lat.*), in the whole, entirely.
Intra muros (*Lat.*), within the walls.
In transitu (*Lat.*), in transit; on the journey.
Intra parietes (*Lat.*), within walls; in private.
In usu (*Lat.*), in use.
In utrumque paratus (*Lat.*), prepared for either event.
In vacuo (*Lat.*), in a vacuum; in an empty space.
Inverso ordine (*Lat.*), in an inverted order.
In vino veritas (*Lat.*), there is truth in wine.
Ipse dixit (*Lat.*), he said it himself; a mere dogma.
Ipso facto (*Lat.*), in the fact itself.
Ita est (*Lat.*), it is so, or thus.

J

Jacta est alea (*Lat.*), the die is cast.
Jamais arrière (*Fr.*), never behind.
Januis clausis (*Lat.*), with closed doors.
Jardin des Plantes (*Fr.*), the botanical gardens.
Je ne sais quoi (*Fr.*), I know not what.
Je suis prêt (*Fr.*), I am ready.
Jet d'eau (*Fr.*), jet of water.
Jeu de mots (*Fr.*), a play of words; a pun.
Jeu d'esprit (*Fr.*), a witticism.
Jeu de théâtre (*Fr.*), a stage trick; cheap play; done for effect.
Joli (*Fr.*), pretty.
Jubilate Deo (*Lat.*), be joyful in the Lord.
Judicium Dei (*Lat.*), the judgment of God.

L

La beauté sans vertu est une fleur sans parfum (*Fr.*), Beauty without virtue is a flower without perfume.

L'abito è una seconda natura (*It.*), Habit is second nature.

Labore et honore (*Lat.*), by labor and honor.

Labor ipse voluptas (*Lat.*), Labor itself is pleasure.

Labor omnia vincit (*Lat.*), Labor conquers all things.

Laborum dulce lenimen (*Lat.*), the sweet solace of our labors.

La critique est aisée, et l'art est difficile (*Fr.*), Criticism is easy, the doing is hard.

Laissez faire (*Fr.*), let alone; let things take their natural course.

Là, là (*Fr.*), so, so; indifferently.

Lapsus calami (*Lat.*), a slip of the pen.

Lapsus linguæ (*Lat.*), a slip of the tongue.

Lapsus memoriæ (*Lat.*), a slip of the memory.

Lares et penates (*Lat.*), household gods.

L'argent (*Fr.*), money.

Latet anguis in herbâ (*Lat.*), A snake lies hidden in the grass.

Laudator temporis acti (*Lat.*), A praiser of past times.

Laudum immensa cupido (*Lat.*), an inordinate desire for praise.

Laus Deo (*Lat.*), praise God.

L'avenir (*Fr.*), the future.

Le beau monde (*Fr.*), the fashionable world.

Le grand monarque (*Fr.*), the great monarch, — Louis XIV.

Le jeu n'en vaut pas la chandelle (*Fr.*), The game is not worth the candle.

Le monde est le livre des femmes (*Fr.*), The world is the book of women.

Le monde savant (*Fr.*), the learned world.

Le roi et l'état (*Fr.*), king and state.

Le roi le veut (*Fr.*), the king wills it.

Le savoir-faire (*Fr.*), ability; skill.

Les bras croisés (*Fr.*), with folded arms.

Lèse-majesté (*Fr.*), high treason.

Les larmes aux yeux (*Fr.*), tears in one's eyes.

Les murailles ont des oreilles (*Fr.*), Walls have ears.

L'état, c'est moi (*Fr.*), I am the state.

L'étoile du nord (*Fr.*), The star of the north; — the motto of Minnesota.

Le tout ensemble (*Fr.*), all together; the effect of the whole

Lettre de cachet (*Fr.*), a seal letter.

Lettre de change (*Fr.*), a bill of exchange.

Lettre de créance (*Fr.*), a letter of credit.

Lettre de marque (*Fr.*), a letter of reprisal.

Lex non scripta (*Lat.*), the unwritten law.

Lex scripta (*Lat.*), statute law.

L'homme propose, et Dieu dispose (*Fr.*), Man proposes, and God disposes.

Libraire (*Fr.*), a bookseller.

L'inconnu (*Fr.*), the unknown.

L'incroyable (*Fr.*), the incredible.

Lingua franca (*It.*), The mixed language of Europeans in the East.

Lis pendens (*Lat.*), a pending suit.

Lis sub judice (*Lat.*), a case yet to be decided.

Lite pendente (*Lat.*), during the trial.

Loco citato (*Lat.*), in the place named.

Locum tenens (*Lat.*), one holding the place.

Locus in quo (*Lat.*), the place in which.

Locus sigilli (*Lat.*), the place for the seal. (L. S.)

M

Ma chère (*Fr.*), My dear.

Ma foi (*Fr.*), My faith.

Magna est veritas, et prævalebit (*Lat.*), Truth is mighty and will prevail.

Magnum bonum (*Lat.*), a great good.

Magnum opus (*Lat.*), a great work.

Maison de campagne (*Fr.*), a country house.

Maître d'hôtel (*Fr.*), a house steward.

Malade (*Fr.*), sick.

Mal à propos (*Fr.*), ill-timed.

Mal de dents (*Fr.*), toothache.

Mal de mer (*Fr.*), seasickness.

Mal de tête (*Fr.*), headache.

Malgré nous (*Fr.*), in spite of us.

Mardi gras (*Fr.*), Shrove Tuesday.

Materfamilias (*Lat.*), mother of a family.

Mauvaise honte (*Fr.*), false modesty.

Mauvais goût (*Fr.*), bad taste.

Mauvais sujet (*Fr.*), a worthless fellow.

Meâ culpâ (*Lat.*), through my fault.

Me judice (*Lat.*), in my opinion.

Memento mori (*Lat.*), remember death.

Memorabilia (*Lat.*), things worth remembering.

Mens sana in sano corpore (*Lat.*), a sound mind in a sound body.

Menu Terms in Common Usage.—

Abricots	- - - - -	Apricots.
Agneau	- - - - -	Lamb.
Alose	- - - - -	Shad.
Alouettes	- - - - -	Larks.
Aloyau	- - - - -	Sirloin of Beef.
Amandes	- - - - -	Almonds.
Ananas	- - - - -	Pineapples.
Anchois	- - - - -	Anchovy.
Anguilles	- - - - -	Eels.
Artichaut	- - - - -	Artichoke.
Bécasse	- - - - -	Woodcock.
Bécassine	- - - - -	Snipe.

Menu Terms.—Continued

Beignets - - - - -	Fritters.	Grillé - - - - -	Broiled.
Beurre - - - - -	Butter.	Groseilles - - - - -	Gooseberries.
Blanchailles - - - - -	Whitebait.	Harengs pec - - - - -	Pickled or Red Her rings.
Bœuf - - - - -	Beef.	Harenguets - - - - -	Sprats.
Bouilli - - - - -	Boiled Beef.	Haricots verts - - - - -	French Beans.
Bouillie - - - - -	Hasty Pudding.	Hollandaise verte - - - - -	Green Dutch Sauce.
Brochet - - - - -	Pike.	Homard - - - - -	Lobster.
Cabillaud - - - - -	Cod.	Huitres - - - - -	Oysters.
Canards - - - - -	Ducks.	Jambon - - - - -	Ham.
Canards Sauvages - - - - -	Wild Ducks.	Jigot de Mouton - - - - -	Leg of Mutton.
Canetons - - - - -	Ducklings.	Lait - - - - -	Milk.
Café - - - - -	Coffee.	Laitances - - - - -	Fish Roes.
Câpres - - - - -	Capers.	Lapin - - - - -	Rabbit.
Carrelet - - - - -	Flounder.	Lapin au Kari - - - - -	Curried Rabbit.
Caviare - - - - -	Dried Sturgeon's Liver.	Légumes - - - - -	Vegetables.
Champignons - - - - -	Mushrooms.	Lièvre - - - - -	Hare.
Choux - - - - -	Cabbage.	Longe - - - - -	Loin.
Choux de Bruxelles - - - - -	Brussels Sprouts.	Maquereau - - - - -	Mackerel.
Choux Marins - - - - -	Sea Kale.	Marrons - - - - -	Chestnuts.
Citron - - - - -	Lemon.	Matelote - - - - -	Fish Stew.
Compote - - - - -	Stew of Fruit or Pigeons.	Merlan - - - - -	Whiting.
Concombre - - - - -	Cucumber.	Moules - - - - -	Mussels.
Confitures - - - - -	Sweets.	Mouton - - - - -	Mutton.
Consommé de tête de veau - - - - -	Mock Turtle Soup.	Navet - - - - -	Turnip.
Cotelettes de Mouton, - - - - -	Mutton Cutlets.	Nougat - - - - -	Almond Cake.
Côtes de Bœuf - - - - -	Ribs of Beef.	Œufs à l'Indienne - - - - -	Curried Eggs.
Courge - - - - -	Vegetable Marrow, Pumpkin.	Oie - - - - -	Goose.
Cressons - - - - -	Cresses.	Oignons - - - - -	Onions.
Crevettes - - - - -	Prawns.	Oison - - - - -	Gosling.
Diablotins - - - - -	Chocolate Crackers, etc.	Orge - - - - -	Barley.
Dindon - - - - -	Turkey.	Pailles de Parmesan, - - - - -	Cheese Straw
Eglefin - - - - -	Haddock.	Pain - - - - -	Bread.
Entremets - - - - -	Side-dishes.	Panais - - - - -	Parsnip.
Eperlans - - - - -	Smelts.	Paté de fois Gras - - - - -	Goose Liver Pie.
Epinard - - - - -	Spinach.	Pâtisserie - - - - -	Pastry.
Esturgeon - - - - -	Sturgeon.	Pêches - - - - -	Peaches.
Etuvée - - - - -	Stew.	Perdreux - - - - -	Partridges.
Farce - - - - -	Forced Meat.	Petits Pois - - - - -	Green Peas.
Farci - - - - -	Stuffed.	Pluviers - - - - -	Plovers.
Figs - - - - -	Figs.	Poëreau - - - - -	Leek.
Fillet de Veau - - - - -	Fillet of Veal.	Pois - - - - -	Peas.
Frais - - - - -	Fresh.	Poissons - - - - -	Fish.
Framboises - - - - -	Raspberries.	Pommes - - - - -	Apples.
Frit - - - - -	Fried.	Pommes de Terre - - - - -	Potatoes.
Fromage - - - - -	Cheese.	Potage de Leoraut - - - - -	Hare Soup.
Gâteau - - - - -	Cake.	Potage de Queue de Bœuf - - - - -	Ox-tail Soup.
Gelée - - - - -	Jelly.	Purée de Pois - - - - -	Pea Soup.
Gibelottes - - - - -	Rabbit Stew	Ragout - - - - -	Hash.
Gibier - - - - -	Game.	Raie - - - - -	Skate.
Glaces - - - - -	Ices.	Raifort - - - - -	Horse-radish.
Goujons - - - - -	Gudgeons.	Raitons - - - - -	Small Skate.
Gratin - - - - -	Burnt Bread Scrap- ings.	Ramier - - - - -	Wood Pigeon.
		Réchauffé - - - - -	Warmed Again.
		Ris de Veau - - - - -	Veal Sweetbreads.
		Rissoles - - - - -	Roasts.
		Rissole - - - - -	Fritter with Mixed Meat.

Menu Terms.—Continued

Rôt, Rôti	- - - -	Roast.
Rouelle de Veau Roti,		Roast Fillet of Veal.
Rouget	- - - -	Red Mullet.
Sagou	- - - -	Sago.
Salmi de Gibier	- -	Hashed Game.
Saucisses	- - - -	Sausages.
Saumon	- - - -	Salmon.
Selle de Mouton	- -	Saddle of Mutton.
Soupe de l'Inde	- -	Mulligatawny Soup.
Soupe Maigre	- - -	Soup without Meat.
Terrine	- - - -	Potted.
Thé	- - - -	Tea.
Tortue	- - - -	Turtle.
Tortue Claire	- - -	Clear Turtle Soup.
Tourtellettes	- - -	Cheese Cakes.
Tourtes	- - - -	Tarts.
Truit	- - - -	Trout.
Veau	- - - -	Veal.
Venaison	- - - -	Venison.
Volaille	- - - -	Fowl, Chicken.

Mésalliance (*Fr.*), marriage beneath one.

Meum et tuum (*Lat.*), mine and thine.

Mirabile dictu (*Lat.*), wonderful to tell.

Mirabile visu (*Lat.*), wonderful to see.

Mise en scène (*Fr.*), preparation of the stage for a play.

Mittimus (*Lat.*), we send;—a writ of commitment to prison.

Modus operandi (*Lat.*), mode of operation.

Mon ami (*Fr.*), my friend.

Mon cher (*Fr.*) my dear.

More majorum (*Lat.*), after the manner of our ancestors.

More suo (*Lat.*), in his own way.

Multum in parvo (*Lat.*), much in little.

Mutatis mutandis (*Lat.*), the necessary changes having been made.

Mutato nomine (*Lat.*), the name having been changed.

N

Née (*Fr.*), born, used to indicate the maiden name of a married woman.

Ne exeat (*Lat.*), let him not depart.

Négligé (*Fr.*), a morning dress.

Nemine contradicente (*Lat.*), no one offering opposition; *nem. con.*

Nemo me impune lacessit (*Lat.*), No one injures me with impunity;—“None daur meddle wi’ me;”—the motto of Scotland.

Ne plus ultra (*Lat.*), nothing further; the highest perfection.

Ne quid nimis (*Lat.*), not anything too much or too far.

Ne tentes, aut perface (*Lat.*), attempt not or finish thoroughly.

Nihil ad rem (*Lat.*), nothing to the point.

Nil desperandum (*Lat.*), never despair.

Nil sine numine (*Lat.*), Nothing without God;—the motto of Colorado.

N’importe (*Fr.*), it matters not.

Noblesse oblige (*Fr.*) rank imposes obligation.

Nolens volens (*Lat.*), whether he will or not.

Noli me tangere (*Lat.*) do not touch me.

Nolle prosequi (*Lat.*), to be unwilling to proceed.

Nom de guerre (*Fr.*), a war name; a pseudonym.

Nom de plume (*Fr.*), a literary name or pseudonym.

Non compos mentis (*Lat.*), not of sound mind.

Non multa, sed multum (*Lat.*), not many things, but much.

Non nobis solum (*Lat.*), not for ourselves alone.

Non sequitur (*Lat.*), it does not follow.

Nota bene (*Lat.*), mark well; note carefully; N. B.

Notre Dame (*Fr.*), Our Lady.

N’oubliez pas (*Fr.*), do not forget.

Nous verrons (*Fr.*), we shall see.

Nouvelles (*Fr.*), news.

Nulli secundus (*Lat.*), second to none.

Nunc aut nunquam (*Lat.*), now or never.

O

Obiit (*Lat.*), he died.

Obiter dictum (*Lat.*), something said in passing a subject.

Odi profanum vulgus (*Lat.*), I hate the common crowd.

Œil de bœuf (*Fr.*), bull’s-eye; marguerite.

Œuvres (*Fr.*), works.

Omnia ad Dei gloriam (*Lat.*), all things to the glory of God.

Omnia bona bonis (*Lat.*), To the good all things are good.

Omnia vincit amor (*Lat.*), Love conquers all things.

Omnia vincit labor (*Lat.*), Labor conquers all things.

On dit (*Fr.*), they say; it is said; rumor says.

Ora et labora (*Lat.*), work and pray.

Ora pro nobis (*Lat.*), pray for us.

Ore rotundo (*Lat.*), with round, full voice.

O tempora! O mores! (*Lat.*) O the times! O the manners!

Otium cum dignitate (*Lat.*), ease with dignity.

Ouï-dire (*Fr.*), hearsay ; rumor.
Ouvert (*Fr.*), open.
Ouvrage (*Fr.*), work.
Ouvriers (*Fr.*), workmen.

P

Padrone (*It.*), master ; employer ; landlord.
Pallida mors (*Lat.*), pale death.
Palmam qui meruit ferat (*Lat.*), Let him bear the palm who deserves it.
Palma non sine pulvere (*Lat.*), There is no palm without dust (of the arena) ; no reward without toil.
Par accord (*Fr.*), by agreement.
Par ci par là (*Fr.*), here and there.
Par excellence (*Fr.*), by way of eminence.
Par exemple (*Fr.*), by example.
Par force (*Fr.*), by force.
Par hasard (*Fr.*), by chance.
Pari passu (*Lat.*), with equal pace ; together.
Parlez du loup, et vous verrez sa queue (*Fr.*), Speak of the wolf and you will see his tail.
Parole d'honneur (*Fr.*), word of honor.
Particeps criminis (*Lat.*), a party to the crime ; an accomplice.
Partie carée (*Fr.*), a party of four ; two couples.
Partout (*Fr.*), everywhere.
Passager (*Fr.*), a passenger.
Passe-partout (*Fr.*), a pass everywhere ; a master-key.
Passim (*Lat.*), everywhere.
Paterfamilias (*Lat.*), father of a family.
Pater noster (*Lat.*), Our Father ; the Lord's Prayer.
Pater patriæ (*Lat.*), Father of his country.
Pax in bello (*Lat.*), peace in war.
Pax vobiscum (*Lat.*), Peace be with you.
Peccavi (*Lat.*), I have sinned.
Pendente lite (*Lat.*), pending the suit.
Pensée (*Fr.*), a thought.
Per annum (*Lat.*), by the year.
Per aspera ad astra (*Lat.*), through difficulties to the stars.
Per capita (*Lat.*), by the head.
Per centum (*Lat.*), by the hundred.
Per contra (*Lat.*), contrariwise.
Per curiam (*Lat.*), by the court.
Per diem (*Lat.*), by the day.
Perdu (*Fr.*), lost.
Père de famille (*Fr.*), father of a family.
Per fas et nefas (*Lat.*), through right or wrong.
Per gradus (*Lat.*), step by step.
Per interim (*Lat.*), in the meantime.
Per se (*Lat.*), considered by itself.
Petit (*Fr.*), small.

Petit coup (*Fr.*), a small domino or mask.
Petitio principii (*Lat.*), begging the question.
Petit-maître (*Fr.*) a fop ; dandy.
Peu à peu (*Fr.*), little by little.
Peu de chose (*Fr.*) a trifle.
Pezzo (*It.*), a coin ; a piece.

Philippine Terms :

Abacá, Manila-hemp.
 Adelantado, a ruler of high rank.
 Aguinaldo, a gift. The Filipino leader's name is derived from this word.
 Alcalde, or Alcalde mayor, the mayor or presiding officer of a town.
 Anito, an idol.
 Areca, a palm which produces from 200 to 800 nuts in a season. The natives make the narcotic betel from it. Large quantities are exported and used in the manufacture of a dentifrice.
 Arroba, a weight of 25 pounds.
 Asuan, an evil spirit which is to be especially avoided at the time of the birth of a child. Even the most enlightened close the windows on such occasions.
 Bagsacay, an assagai or spear, about a half inch in diameter, in use among the Sulu Islanders.
 Bahay, a house.
 Balbal, an evil spirit.
 Balitao, a popular love dance among the Visayas.
 Bamberos, a fire company.
 Baños, baths or hot springs.
 Barong, a short sword used in close combat by the Sulu Islanders.
 Barrio, a ward or division of a town.
 Bejuco, or Bush-rope. It grows in lengths of about 100 feet and has a maximum diameter of from one to one and a quarter inches. It is of great pliancy and is used as cables for rafts and bridges. In smaller sizes it takes the place of nails and bolts.
 Beno, a potent native drink. It is of remarkable intoxicating properties.
 Bigaycaya, a dowery settlement upon a bride among the Tagals.
 Bolo, or Bohie, a cane-knife or machete, used for cutting sugar-cane.
 Cabeça de barangay, the officer who collects tribute or taxes from a group of families.
 Caguang, an animal peculiar to the Philippines and so much resembling both a monkey and a bat that it has been called the "monkey-faced bat."
 Calao, a bird belonging to the class of hornbills.
 Camote, a sweet-potato.
 Campilan, a short, two-handed sword used by the Sulu Islanders.

Philippine Terms.—*Continued*

Carabao, the black water-buffalo, much used as a beast of burden.
 Carromata, a small two-wheeled spring-cart; the "family carriage."
 Cascoes, the light draught-boats used for the navigation of small streams and capable of carrying enormous loads.
 Castila, European.
 Catapusan, funeral festivities lasting nine days, the last of which, the catapusan proper, is devoted to wailing, praying, drinking, and eating.
 Chacon, a lizard.
 Chinelas, flat, heelless slippers, usually worn without stockings.
 Cochero, a driver.
 Cogon, a tall jungle grass used for thatching.
 Collas, heavy rains at the beginning of the wet season.
 Compadre, a relation.
 Convento, a convent.
 Copra, dried cocoanut.
 Cueva, a cave.
 Dato, a chief among the Moros.
 Dubu, the carved pillar temple of the Papuans.
 Esposa, a wife.
 Fiesta, a feast day or holy day.
 Gente del monte, people of the wood; wood genii of Guam.
 Gobernadorcillo, the chief magistrate of a commune.
 Gracias, thanks.
 Iguana, the giant lizard which sometimes attains to a length of six or seven feet.
 Ingles, the English.
 Islas Filipinas, Philippine Islands.
 Jabul, a strip of stuff sewn together at the ends, used to protect the head from the sun's rays. It is worn by the Sulu women.
 Junta, a board or commission of governors.
 Juramentados, one sworn to slavery to his creditor, among the Sulus. His only escape is death which he courts by entrance upon a fanatic warfare against Christians in conformity with his oath.
 Kris, a sword, either curved or straight, used for cutting or thrusting by the Sulus.
 Mestizo-Chino, a half-caste Chinese.
 Molave, a well-known, hard wood, of a dark brown color, and capable of taking a high polish. It is much used in interiors. It is not affected by sea-worms, ants, or climate.
 Monte, a mountain.
 Moros, Mohammedan fanatics.
 Muchacha, a girl servant.
 Muchacho, a boy servant.

Narra, a much-prized wood, used in the manufacture of fine furniture. It varies in color from a light straw to a deep red.
 Nipa, a palm which takes the place of bamboo. From its sap a native wine is made, and its large leaves are used for thatching.
 Padre, the priest.
 Palawan, a species of yam.
 Peso, a Mexican dollar, a value of fifty cents.
 Picul, a weight of 140 pounds.
 Pina, a fabric woven from the fibers of cocoanut.
 Plaza, the square or public place in cities.
 Polista, an impressed workman.
 Presidencia, the town-hall.
 Presidente, one of the chief officers of a town.
 Puanlada, a red spotted dove.
 Pueblo, a township under the rule of a chief.
 Pundita, a priest among the Moros.
 Quilez, a two-wheeled covered cart or wagon.
 Salacot, a large, round, basket-like hat.
 Salamat-po! Thank you! (Luzon.)
 Salangane, edible birds' nests.
 Santones, religious fanatics who claim supernatural powers of second sight and healing diseases.
 Señora, the title of a married woman.
 Señorita, the title or mode of address of an unmarried woman.
 Suelo, a sleeping-room.
 Taclobo, a huge shell-fish. The shell often attains to a weight of 200 pounds. These shells are often used as baptismal fonts in churches.
 Tribunal, a court-house.
 Tus-tus, roughly-made cigars of good quality, from Papua.
Piccolo (*It.*), small.
Pied à terre (*Fr.*), temporary lodging.
Pinxit (*Lat.*), he painted it.
Pis aller (*Fr.*), the last shift.
Più (*It.*), more.
Plebs (*Lat.*), the common people.
Pleno jure (*Lat.*), with full authority.
Poco (*It.*), a little.
Poco à poco (*It.*), little by little.
Poëta nascitur, non fit (*Lat.*), The poet is born, not made.
Point d'appui (*Fr.*), point of support; prop.
Poisson d'avril (*Fr.*), April fool.
Pons asinorum (*Lat.*), the asses' bridge.
Porte-chaise (*Fr.*), a sedan chair.
Porte-voix (*Fr.*), a speaking trumpet.
Poste-restante (*Fr.*), to remain until called for,—said of letters.
Post mortem (*Lat.*), after death.
Post obitum (*Lat.*), after death.
Pour faire rire (*Fr.*), to excite laughter.
Pour passer le temps (*Fr.*), to pass the time.

Pour prendre congé (*Fr.*), to take leave;
P. P. C.

Preux chevalier (*Fr.*), a brave knight.

Prima donna (*It.*), the first lady; chief female singer.

Primâ facie (*Lat.*), on the first view; upon the face of it.

Primo (*Lat.*), in the first place.

Pro bono publico (*Lat.*), for the public good.

Pro confesso (*Lat.*), as if conceded.

Pro et con (*Lat.*), for and against.

Pro formâ (*Lat.*), as a matter of form; for form's sake.

Pro hâc vice (*Lat.*), for this turn or occasion.

Propaganda (*Lat.*), for the purpose of extending (knowledge).

Pro patriâ (*Lat.*), for our country.

Pro ratâ (*Lat.*), in proportion.

Pro re natâ (*Lat.*), for a special emergency.

Pro tanto (*Lat.*), for so much; by so much.

Protégé (*Fr.*), one protected or patronized by another.

Pro tempore (*Lat.*), for the time being; *pro tem.*

Q

Quantum (*Lat.*), the amount or quantity.

Quantum libet (*Lat.*), as much as you please.

Quantum sufficit (*Lat.*), as much as suffices.

Quantum vis (*Lat.*), as much as you will.

Quasi (*Lat.*), as if; in such a manner.

Quelque chose (*Fr.*), something.

Quid nunc? (*Lat.*), what now?

Quid pro quo (*Lat.*), an equivalent; something in return.

Quien sabe? (*Sp.*), who knows?

Qui va là? (*Fr.*), who goes there?

Qui vive? (*Fr.*), who goes there?

Qui vive (on the), on the alert.

Quo animo? (*Lat.*), with what intention? to what purpose?

Quod erat demonstrandum (*Lat.*), which was required to be proved; Q. E. D.

Quod erat faciendum (*Lat.*), which was required to be done; Q. E. F.

Quod vide (*Lat.*), which see; *q. v.*

Quomodo? (*Lat.*), how? in what manner?

Quo vadis? (*Lat.*), whither goest thou?

R

Raison d'état (*Fr.*), state reason.

Raison d'être (*Fr.*) a reason for existing or being.

Rara avis (*Lat.*), a rare bird; a wonder.

Rechauffé (*Fr.*), warmed over; stale.

Reçu (*Fr.*), received.

Reductio ad absurdum (*Lat.*), a reducing to an absurdity; proving the impossibility by showing the absurdity.

Regnant populi (*Lat.*), The people rule;—the motto of Arkansas.

Religieuse (*Fr.*), a nun.

Renaissance (*Fr.*), a revival—as of art or letters.

Requiescat in pace (*Lat.*), Let him rest in peace.

Res gestæ (*Lat.*), things accomplished.

Res judicata (*Lat.*), a matter already settled.

Respice finem (*Lat.*), look to the end.

Respublica (*Lat.*), the state.

Résumé (*Fr.*), an abstract or summary.

Resurgam (*Lat.*), I shall rise again.

Revenons à nos moutons (*Fr.*), Let us return to our sheep; let us return to our subject.

Robe de chambre (*Fr.*), a dressing gown.

Ruat cælum (*Lat.*), Let the heavens fall.

Ruse de guerre (*Fr.*), trick or stratagem of war.

Rus in urbe (*Lat.*), country in the city.

S

Sal Atticum (*Lat.*), Attic salt; wit.

Salle (*Fr.*), hall of a house.

Salve! (*Lat.*), Hail!—the motto of Idaho.

Sanctum sanctorum (*Lat.*), Holy of holies.

Sans cérémonie (*Fr.*), without ceremony.

Sans doute (*Fr.*), without doubt.

Sans pareil (*Fr.*), unequaled.

Sans peine (*Fr.*), without difficulty.

Sans peur et sans reproche (*Fr.*), without fear and without reproach.

Sans souci (*Fr.*), free from care.

Sapere aude (*Lat.*), dare to be wise.

Sartor resartus (*Lat.*), the tailor mended.

Satis verborum (*Lat.*), enough of words.

Sauve qui peut (*Fr.*), save himself who can.

Savoir-faire (*Fr.*), ability; skill.

Savoir-vivre (*Fr.*), good breeding; refinement.

Savon (*Fr.*), soap.

Scire facias (*Lat.*), cause it to be known.

Secundum artem (*Lat.*), according to rule; in an artistic manner.

Secundum naturam (*Lat.*), according to nature.

Semel et simul (*Lat.*), once and together.

Semel pro semper (*Lat.*), once for all.

Semper fidelis (*Lat.*), always faithful.

Semper idem (*Lat.*), always the same.

Semper paratus (*Lat.*), always ready.

Sic semper tyrannis (*Lat.*), Ever thus to tyrants;—the motto of Virginia.

Sic transit gloria mundi (*Lat.*), So passes away earthly glory.

Similia similibus curantur (*Lat.*), Like cures like.

Si monumentum requiris, circumspice (*Lat.*), If you search his monument, look about you;—Sir Christopher Wren's epitaph in St. Paul's Cathedral, London.

Sine curâ (*Lat.*), with care.
Sine die (*Lat.*), without appointing a day for a next meeting.
Sine qua non (*Lat.*), without which not; an indispensable condition.
Si quæris peninsulam amœnam, circumspice (*Lat.*), If thou seekest a beautiful peninsula, look about you ;— the motto of Michigan.
Soubrette (*Fr.*), an intriguing woman.
Soupçon (*Fr.*), suspicion.
Sponte suâ (*Lat.*), of his own accord.
Stet (*Lat.*), let it stand.
Sturm und Drang (*Ger.*), storm and stress.
Suaviter in modo, fortiter in re (*Lat.*), gentle in manner, resolute in action.
Sub judice (*Lat.*), under consideration.
Sub rosâ (*Lat.*), under the rose, secretly.
Sui generis (*Lat.*), of his own kind.
Summum bonum (*Lat.*), the highest good.

T

Tableau vivant (*Fr.*), living pictures.
Taille (*Fr.*), form; stature; shape.
Tant mieux (*Fr.*), so much the better.
Tant pis (*Fr.*), so much the worse.
Tempus fugit (*Lat.*), time flies.
Terra cotta (*It.*), baked earth.
Terra firma (*Lat.*), solid earth.
Terra incognita (*Lat.*), an unknown land.
Tò καλὸν (To kalon) (*Gr.*), the beautiful; the chief good.
Tò πρέπον (To prepon) (*Gr.*), the proper; the fitting; the becoming.
Totidem verbis (*Lat.*), in so many words.
Toujours prêt (*Fr.*), always ready.
Tour de force (*Fr.*), a feat of strength.
Tout-à-fait (*Fr.*), entirely; wholly.
Tout-à-l'heure (*Fr.*), instantly.
Tout au contraire (*Fr.*), quite the contrary.
Tout à vous (*Fr.*), wholly yours.
Tout de même (*Fr.*), quite the same.
Tout de suite (*Fr.*), immediately.
Tout ensemble (*Fr.*), the whole taken together; the effect of the whole.
Tristesse (*Fr.*), sorrow.
Trottoir (*Fr.*), sidewalk.

U

Ubique (*Lat.*), everywhere.
Ubi supra (*Lat.*), where mentioned above.
Ultima Thule (*Lat.*), the farthest boundary.
Ultimatum (*Lat.*), the last condition.
Ultra vires (*Lat.*), beyond the power.
Unâ voce (*Lat.*), with one voice; unanimously.
Uno animo (*Lat.*), with one mind.
Ut infra (*Lat.*), as below.
Ut supra (*Lat.*), as above.

V

Vade in pace (*Lat.*), go in peace.

Vade mecum (*Lat.*), go with me; a constant companion.
Væ victis (*Lat.*), woe to the conquered.
Vale (*Lat.*), farewell.
Valet de chambre (*Fr.*), an attendant.
Vaurien (*Fr.*), a good-for-nothing.
Veni, vidi, vici (*Lat.*), I came, I saw, I conquered.
Verbatim et literatim (*Low Lat.*), Word for word and letter for letter.
Verbum sat sapienti (*Lat.*), A word to the wise is sufficient.
Veritas prævalebit (*Lat.*), Truth will prevail.
Veritas vincit (*Lat.*), Truth conquers.
Vermoulu (*Fr.*), worm-eaten.
Versus (*Lat.*), against; *vs.*
Via (*Lat.*), by way of.
Via media (*Lat.*), a middle course.
Vice (*Lat.*), in the place of.
Vice versâ (*Lat.*), the terms having been changed.
Videlicet (*Lat.*), to-wit; namely; *viz.*
Videtur (*Lat.*), it appears.
Vide ut supra (*Lat.*), see as stated above.
Vi et armis (*Lat.*), by force of arms.
Vif (*Fr.*), lively; active; vivid.
Vin (*Fr.*), wine.
Vinculum matrimonii (*Lat.*), the bond of marriage.
Vis a tergo (*Lat.*), a propelling force from behind.
Vis à vis (*Fr.*), facing; opposite.
Vita brevis, ars longa (*Lat.*), Life is short, art is long.
Vivat! (*Lat.*), Long live!
Vivat regina! (*Lat.*), Long live the queen!
Vivat respublica! (*Lat.*), Long live the republic!
Vivat rex! (*Lat.*), Long live the king!
Vivâ voce (*Lat.*), with the living voice; orally; by word of mouth.
Vive la république! (*Fr.*), Long live the republic!
Vive la bagatelle! (*Fr.*), Long life to trifles!
Vive l'empereur! (*Fr.*), Long live the emperor!
Vive le roi! (*Fr.*), Long live the king!
Voilà (*Fr.*), behold; there is, or there are.
Voilà tout (*Fr.*), that's all.
Vox, et præterea nihil (*Lat.*), a voice, and nothing else; sound without sense.
Vox populi, vox Dei (*Lat.*), The voice of the people is the voice of God.

Z

Zeitgeist (*Ger.*), The spirit of the age.
Zonam perdidit (*Lat.*), he has lost his purse; he is in needy circumstances.

WRECKAGE.—Merchandise saved from a wreck.

NINETEENTH CENTURY, ECONOMIC PROGRESS OF THE

DIFFERENCE IN ITS DEVELOPMENT FROM ALL PRECEDING CENTURIES — CHANGES IN POPULATION IN EUROPE AND IN THE UNITED STATES — THE CREATION OF RAILWAYS AND THE GROWTH OF STEAM MANUFACTURING POWER — HOW LOW FREIGHT RATES UNIFIED THE WORLD MARKET AND PROMOTED UNIVERSAL COMPETITION — DEVELOPMENT OF CREDIT AND BANKING POWER — VOLUME OF THE WORLD'S COMMERCE — PROGRESS OF THE UNDEVELOPED COUNTRIES.

THE nineteenth century witnessed a more striking growth in wealth, and in the material comforts of civilization, than had any preceding century in the history of the world. This statement can be made without qualification, because of the new power brought to the aid of men by machine production. The application of steam power and electricity, to manufacturing and transportation, has revolutionized the organization of industry, brought together distant parts of the world, and so increased the producing power of the individual arm, that a comparatively small part of the members of the community are now able to produce its food supply, clothing, and shelter, and a larger proportion than ever before are released from these employments for the higher ones of luxury, literature, art, and ministry to the finest tastes. The changes in methods of business, in wealth, and in general conditions, which have been thus brought about, are revealed chiefly through the creation of mills and factories, through the increase in their output and the increased equipment for carrying this output, by rail and steamship, to all parts of the world, and through the great volume of commerce, banking credits, and saved capital, among every civilized people. These changes in methods of production and exchange have caused not merely changes in the volume of things produced and in the rapidity of their exchange, but have tended to wipe out the distinctions between markets, and to reduce competition in the great staple articles of agriculture and manufactures to competition in a single world market, where prices and conditions affecting supply and demand are flashed around the world in an instant by the telegraph, the telephone, and the ocean cable.

The world is now many times richer in the aggregate than it was at the beginning of the nineteenth century, and many times richer in the average wealth of the individual. Population has increased

with rapid strides, and to an extent which would not have been possible under the old conditions of food production and transportation. The world is no longer shut off in isolated communities, which are compelled to raise their own food and to make their own clothing, and which suffer famine and starvation if their local supplies fail. Each civilized people, in time of peace, can now count upon the resources of all other peoples to supply its needs, with no greater disturbance in case of crop failure or emergency than the fluctuations of securities on the stock market or the transfer of gold and credits between great banking houses. Populations have sprung up in Great Britain, Belgium, and the large cities of other countries, which draw their food supplies from other lands, or over seas. They never expect, under the most favorable conditions, to obtain these supplies entirely at home, because they have found that under modern conditions they can more profitably exchange for the food and raw materials of the less advanced countries, the finished products of their mills and workshops. All this became possible upon a large scale only within the latter half of the nineteenth century. The population of the European countries more than doubled within the century, and has shifted the balance of political power. The growth of Europe in population is shown in the following table:—

EUROPEAN POPULATIONS IN THE NINETEENTH CENTURY

	BEGINNING	END	INCREASE	PER CENT. INCREASE
United Kingdom.....	15,668,993	40,500,000	24,831,007	159
France	27,349,003	39,000,000	12,650,997	46
Germany.....	22,000,000	53,900,000	31,900,000	145
Russia in Europe.....	40,170,000	110,000,000	69,830,000	174
Austria-Hungary.....	18,000,000	43,700,000	25,700,000	143
Italy.....	17,380,000	34,000,000	16,620,000	95
Spain.....	10,351,000	19,000,000	8,649,000	83.5
Portugal.....	3,630,000	5,500,000	1,870,000	52
Belgium.....	3,780,000	6,675,000	2,895,000	76
Holland	2,760,000	5,100,000	2,340,000	84
Sweden.....	2,159,000	5,000,000	2,841,000	131
Norway.....	884,000	2,150,000	1,266,000	143
Denmark.....	926,000	2,350,000	1,424,000	154
Switzerland.....	2,392,740	3,150,000	757,260	32
	163,450,736	370,025,000	206,574,264	126

These figures illustrate the comparatively small populations which fought out the Napoleonic wars, and the differences in political in-

fluence which have come with changes in the numbers of the people. France in 1800 was the chief power in Europe. Austria and Great Britain combined surpassed her but little in population. How recent changes in population have gone hand in hand with the shifting of the axis of political power, is thus described by the eminent English statistician, Mr. Robert Giffen: * —

"These facts correspond very closely with the transfer of military preponderance on the continent from France to Germany, and with the increasing prominence of Russia, which would probably be much more felt but for the simultaneous growth of Germany. They also explain why it is that the United Kingdom, with an economic and social development resembling that of France, in many respects, has fallen less behind in the political race; why its relative position among European powers, though not what it was fifty years ago, is less weakened than that of France has been. Fifty years ago it was the leader among powers which were occupied in restraining France, singly a greater power than any. Now it is about equal in numbers to France, although its whole position is changed by the fact that no power, not even Germany, preponderates to the same extent as France once did."

How the means have been found for maintaining these great populations in comfort—and even in luxury, when contrasted with the meager conditions of a century or two ago—is the story of machine production through the use of steam, and of the myriad of inventions that have followed in its wake. The increase in the volume of commerce has been the striking visible proof of the increased producing and consuming power of the world. The entire population of the earth in 1800 was estimated, by careful students, at 640,000,000 souls. The combined foreign commerce of all countries was estimated at \$1,479,000,000, or \$2.31 per capita. The population increased about two-thirds up to 1860, and commerce had risen only to \$4,049,000,000, or less than three times the amount at the beginning of the century. The second half of the century witnessed an increase of less than half in the population of the world but a nearly fivefold increase in the volume of commerce, and an increase in its amount per capita from \$3.76 to \$13.27. These comparisons are forcibly set forth by the following table:—

YEAR	POPULATION	AGGREGATE COMMERCE	COMMERCE PERCAPITA
1800.....	640,000,000	\$1,479,000,000	\$2.31
1850.....	1,075,000,000	4,049,000,000	3.76
1870.....	1,310,000,000	10,663,000,000	8.14
1898.....	1,500,000,000	19,915,000,000	13.27

These figures show that the most rapid upward movement in the volume of commerce occurred after 1860, and even after 1870. The

* "Essays in Finance," Second Series, p. 286.

closing generation of the century witnessed a production of machine-made goods, and an accumulation of capital, far exceeding those of any earlier period. The earlier years of the century were largely employed in perfecting the new inventions and in supplying the manufacturing nations with the full equipment for meeting the new demands. The most important elements of this new equipment were the practical application of steam power to manufacturing, a network of railways, and a fleet of ocean steamers, sufficient to link together the world's chief markets; a sufficient fund of saved capital for creating these new engines of production and exchange without trenching upon the ordinary resources of civilized communities; an organization of credit that would give this saved capital a transferable and loanable form; and, finally, a freedom for the transfer of goods and capital between nations which would permit both to compete freely in the world's markets. The development of these various factors of modern economic life has proceeded gradually along similar, but not exactly parallel, lines. The capital necessary for the new machinery was scarce in the early years of the century, and when railroad building began on a large scale, a severe strain was put upon the resources of even the richest nations. But every successful enterprise that involved a larger net product from a given number of hands, increased the capacity for saving and the capital available for creating new instruments of production. Undue absorption of capital in a given direction caused temporary periods of overproduction, glutted markets, and stagnant trade; but every new crisis of this sort was followed by a new outburst of industrial activity and by a more rapid production of wealth than any which had gone before. The character of these great forces operating upon the development of the nineteenth century, and some of the results that they have produced, it is the purpose of this chapter to set forth.

One of the most efficient weapons of the new era was the power of steam. Steam first became a serious factor in production near the middle of the century, but in 1850 it still amounted to less than four million effective horse power. This capacity was multiplied more than fourteen times within the half century that followed. Europe increased her equipment from 2,240,000 effective horse power, in 1850, to 36,645,000, in 1895; the United States, from 1,680,000 to 16,940,000; and the English colonies from 70,000 to 1,995,000, with the result of swelling the total for the world from 3,990,000 horse power, in 1850, to 55,580,000 horse power, in 1895. In France, where these figures are carefully kept, the returns for 1896 showed the existence of 67,347 stationary machines engaged in industry alone, with the combined horse power of 1,262,688. The increase since 1850 was more

than one thousand per cent., and even within five years was more than twenty-five per cent. The increased power attained by the human race through this new engine of production was set forth for the United States as long ago as 1886, in the following extract from a report by Hon. Carroll D. Wright, United States Commissioner of Labor:—

“The mechanical industries of the United States are carried on by steam, and water, power representing, in round numbers, 3,500,000 horse power, each horse power equaling the muscular labor of six men; that is to say, if men were employed to furnish the power to carry on the industries of this country, it would require 21,000,000 men, and 21,000,000 men represent a population, according to the ratio of the census of 1880, of 105,000,000. The industries are now carried on by 4,000,000 persons, in round numbers, representing a population of 20,000,000 only. There are in the United States 28,600 locomotives. To do the work of these locomotives upon the existing common roads of the country, and the equivalent of that which has been done upon the railroads the past year, would require, in round numbers, 54,000,000 horses and 13,500,000 men. The work is now done, so far as men are concerned, by 250,000, representing a population of 1,250,000, while the population required for the number of men necessary to do the work with horses would be 67,500,000. To do the work, then, now accomplished by power, and power machinery, in our mechanical industries and upon our railroads, would require men representing a population of 172,500,000, in addition to the present population of the country of 55,000,000, or a total population, with hand processes and with horse power, of 227,500,000, which population would be obliged to subsist on present means. In an economic view, the cost to the country would be enormous. The present cost of operating the railroads of the country with steam power is, in round numbers, \$502,600,000 per annum; but to carry on the same amount of work with men and horses would cost the country \$11,308,500,000.”

The application of the power of steam to transportation has been a necessary complement of its application to production. Manufacturing upon a large scale, for a wide market, would have been comparatively useless, especially for bulky articles, if the means had not been created for carrying manufactured products at low rates to the uttermost parts of the earth. The influence of railway construction upon the conditions of industry has gone far beyond the mere cheapening of transportation and the increase in productive power. It has worked a change in social relations among producing nations because it has broken down the barriers between markets. It is this fact—bringing the producers of widely separated points into competition with each other in common markets—that has had much to do with increasing the severity of this competition, and with causing the creation of trust combinations for dividing and controlling markets. There was a time when the individual manufacturer had a practical monopoly of the market within a certain distance from his mill, or at least had no other competitors than those of the same locality. The village cobbler, the local tailor, and weaver, in an English country town, ran but small risk of competition from London or from the other great towns, because of the time required to reach them and the cost and delay of shipping goods.

The change which has brought markets together has come about by degrees. The charges for railway carriage have been reduced, from decade to decade, with the improvement in railway construction, through economy in the use of fuel, derived from improvement in machinery, and through the gradual cheapening of most of the materials of construction. A recent article in the London "Contemporary Review" estimated the combined carrying power of ships and railroads at 26,440,000 tons, in 1860, and 83,340,000 tons, in 1892. It was calculated that in the year 1850 the cost of land carriage for goods in Europe was about \$10 a ton, for one hundred kilometers (62 miles), amounting to about sixteen cents a mile. The reduction in these charges in recent years was set forth in a forcible manner by Professor Henry T. Newcomb, in a report to the Department of Agriculture in 1898, in which he showed that the average revenue from freight, per ton, per mile on the railways of the United States, fell from 1.613 cents in 1873 to 0.806 cent in 1896,—a fall of one-half the original rate within less than a generation.

These reductions in the cost of transportation have resulted in a greatly increased volume of commerce. The freight traffic on the railways of the world is estimated to have trebled between 1870 and 1892, rising from 562,000,000 tons in the former year to 1,746,000,000 tons in the latter year. Europe absorbed 902,000,000 tons of the later traffic, the United States 749,000,000 tons, and other countries 95,000,000 tons. The estimated railway equipment of the world in 1896 was about 445,000 miles (715,000 kilometers), representing a cost of nearly thirty-three thousand millions of dollars (170,000,000,000 francs).^{*} How recent has been this railway development is indicated by the fact that more than half of the present railway mileage of the United States has been constructed since 1880. The mileage of 1870 was only 49,160 miles, which rose in 1880 to 87,724 miles. The next ten years brought up the construction to 163,597 miles, since when construction has been less rapid, because the great centers of trade and production were connected and equipped with railway construction. The mileage of 1900 was about 190,000. In France, the length of railways in operation, exclusive of private lines and tramways, rose from 17,221 kilometers, in 1872, to 37,739 kilometers in 1900. In Russia, within the short period from 1887 to 1900 the mileage of the state railways alone, not including the private lines, rose from 2,928 to 20,346 miles. In the whole of Europe, according to the editor of "L'Economiste Européen," the aggregate railway equipment in operation increased from 134,591 kilometers, on January 1, 1875, to 269,743

^{*} "Dictionnaire du Commerce, de l'Industrie et de la Banque," I., p. 829.

kilometers (165,000 miles), on December 31, 1898. The latest figures of railway construction outside Europe and the United States indicate a total of about 93,000 miles, where in 1850 scarcely a mile of road existed, and where even in 1870 there were less than 12,000 miles.

It is not surprising that producing and exchanging power has been enormously increased by this equipment with the means of transportation, and that the world, from being separated into isolated local markets, has become a single great market, in which the staple products of industry compete with each other upon nearly equal terms, whether originating in the mills of England, the pioneer of manufactures, in the shops and homes of France, and Germany, in the new factories of the United States, with their modern machinery, or in the still younger establishments of China, and Japan. It was estimated in a recent article in the French economic periodical, the "Journal des Economistes," that since 1850 a saving in the transportation of commodities has been effected by means of railways, amounting to 12 per cent. of their price; so that without loss to any one, and without regard to economies in production, the necessities of life can be delivered in any quarter of the world reached by railway traffic, at one-eighth less than would have been possible half a century ago.

The production and useful distribution of the great staples of modern manufacture, coal and iron, has become possible with the extension of railway traffic. The entire production of iron in the world at the beginning of the nineteenth century is reckoned by Mr. James M. Swank at 825,000 long tons, and in 1850, as 4,750,000 tons. The amount rose in 1880 to 17,950,000 tons, in 1890 to 27,157,000 tons, and in 1899 to 39,410,000 tons, of which the United States made 34.56 per cent. The production of steel throughout the world in 1878 was 3,021,000 long tons. Of this large product, which multiplied by 800 per cent. within 21 years, the United States made 10,639,857 tons, or 39.25 per cent. The price of steel rails per ton in Pennsylvania mills was \$158.50 in 1868, and \$67.50 in 1880, but fell in 1890 to \$31.75 and in 1898 to \$17.62.

The efficiency of railways and steamships in placing at the command of civilized communities food supplies and other necessities, has steadily increased since the carrying system of the world approached completion. Agricultural production has been stimulated, and farming upon a large scale has become possible because of the reduction of railway charges. The number of farms in the United States increased 215 per cent. from 1850 to 1890, or from 1,449,073 to 4,564,641, and their total improved acreage increased by 216.2 per cent., or from 113,032,614 acres to 357,616,755 acres. The exports

of wheat from the United States, which were only 12,646,941 bushels, including flour, in 1866, rose to 186,321,514 bushels in 1880, and to 222,694,920 bushels in 1898. The average price on the farm, which was 152.7 cents in 1876, fell to 95.1 cents in 1880 and to 58.2 cents in 1898. This fall in price, however, due partly to improved farming machinery and implements, was only partly borne by the farmer. The decline in the cost of carriage of wheat has been a vital element. The freight rate per bushel from Chicago to New York was 15.95 cents in 1867, and one bushel in every 5.77 bushels was absorbed by the cost of carriage. The conditions of 1880 showed a reduction in the price of carriage to 12.27 cents, and one bushel at the price then ruling, paid the cost of carrying 10.19 bushels. The conditions of 1890 showed that freight rates had fallen to 5.86 cents per bushel and that 14.16 bushels were carried for the cost of one bushel, at the low price of 83 cents then prevailing. The conditions of 1897 showed a further fall in the freight rate from Chicago to New York to 4.35 cents per bushel, and 17.24 bushels were carried to the seaboard for the price of one, even when that price had fallen to 75 cents per bushel.

Thus, the great reduction in the price of farm products for export has been due in large measure to the increased efficiency of transportation by rail, and the fall in price on the other side of the ocean has been due in nearly equal degree to the increased efficiency of transportation by sea. The mass of consuming laborers, therefore, in the great manufacturing countries of Europe, have profited by their ability to obtain a much larger supply of food for a given product of their own labor than ever before. What has been set forth in regard to wheat is true of other staple products. Anthracite coal, which cost \$3.92 per ton at Philadelphia in 1869, was then carried 200 miles for the price of one ton. The price in 1880 was \$4.53, but the fall in freight rates made it possible to carry a ton 284 miles for an amount equal to its price. Freight rates fell from 1.746 cents per ton, per mile, in 1869, to 1.426 cents per ton, per mile, in 1880, and to 0.863 cent per ton, per mile, in 1890, when the price of one ton represented its carriage for 406 miles. This distance had further risen in 1897, at a freight rate of 0.712 cent per ton, per mile, to 439 miles. The fall in freight rates would stand out still more conspicuously if it had not been accompanied by a fall in the price of coal to \$3.50 per ton in 1897, which diminished by more than one-fifth the sum to be divided by the average charge per ton for freight.

The great equipment of machine production and carriage with which the world was dowered in the nineteenth century, called for great amounts of capital, for the means of gathering up the scattered

capitals of individuals into common funds, and for a ready and efficient means of transferring this capital. These means were found in the organization of banking, credit, foreign exchange, clearings, and stock companies. The scanty supplies of metallic money available in the civilized world in 1800 would have been pitifully inadequate to transact the great business of the closing decades of the century. Even the increase in these supplies, which raised the average gold production of the world from \$16,000,000 per year for the first half of the century to \$300,000,000 in its closing years, would have been insufficient to carry on modern business without the extension of the mechanism of credit. This mechanism, in the form of organized banking and the issue of circulating paper money, was hardly known outside of London at the beginning of the nineteenth century. The old specie banks had been destroyed, the Bank of France was about to be organized, and the limited circulation of the Bank of Vienna was under suspicion because of the counterfeiting of its notes by Napoleon. The Bank of France was the oldest of the central banks of the European continent, and it was not until the middle of the century that similar institutions spread in the other countries of Europe. Belgium was dowered with a national bank in 1850; banks sprang up in Spain, in Italy, in the states of Switzerland, and all over Germany; but it was not until 1860 that the Bank of Russia was put upon a firm basis, and not until 1875 that the Imperial Bank of Germany succeeded the Bank of Prussia and established a uniform note circulation for the new German Empire. The money supply of the world, estimated in 1800 at \$2,840,000,000, had risen at the beginning of 1900 to \$11,600,000,000, of which \$4,841,000,000 was in gold. The gold money of the world was estimated for the leading countries at only \$1,209,800,000 in 1873 and at \$3,901,900,000 in 1893. The total stock of money increased more than 100 per cent. within the generation ending with 1900, and the gold basis upon which it rested was multiplied by four.

The banking power of the leading commercial countries is even greater than is indicated by these statistics of the supply of coin and paper money. The European banks of issue increased their deposit accounts from 2,314,000,000 francs at the close of 1875, to 9,321,000,000 francs (\$1,800,000,000) at the close of 1899, while their note circulation increased from 9,699,000,000 francs to 14,992,000,000 francs (\$2,900,000,000.) The banks of Great Britain alone showed deposits in January, 1900, of about £870,000,000 (\$4,230,000,000). These figures, moreover, are independent of the colonial banks with London offices, and of the banks that are nominally foreign, but that have London offices and that are chiefly owned by Englishmen. These classes of British banks had de-

posits at the close of 1899 amounting to about £234,000,000, making the total deposits in British banks, scattered over Australia and other British dependencies, about £1,100,000,000 (\$5,500,000,000). The United States is an equally large contributor to the banking resources of the world. The combined deposits of all the banks of the United States was given by the Comptroller, on or about June 30, 1900, as \$8,513,030,125 and the combined banking power, including capital and surplus, as \$9,146,017,917. This afforded an average banking power per capita, in the United States, of \$118.42, and showed a great increase within a few years. The banking power represented by corresponding figures as recently as 1895, was only \$6,703,544,084, or \$95.83 per capita. The gross increase, therefore, in five years, amounted to more than 35 per cent.

The banking power of the entire world was estimated by Mr. Mulhall, the English statistician, at \$1,540,000,000 in 1840, but it rose, in 1890, to about \$15,000,000,000. The increase within the next ten years, according to an estimate by the Comptroller of the Currency of the United States, was more than 67 per cent., and this carried the world's credits, and the money upon which they were based, to £5,369,000,000 (\$26,000,000,000). An illustration of the remarkable growth in the employment of banking power is afforded by the organization and use of clearing houses in the leading commercial countries. In the United States, the clearings reported for the calendar year 1899 at all cities having clearing houses, were \$88,909,661,776. The income of all workers, in all occupations, was probably about \$10,000,000,000. The transactions through the clearing houses, therefore, representing the multiplied activities necessary to produce such net earnings, were nine times their amount. In France, the payments into the Bank of France in 1899 were 146,930,700,000 francs (\$28,370,000,000), which is about seven times the national income. In the case of Great Britain, the clearings at London in 1899 were 9,150,269,000 (\$44,600,000,000), which is about five times the national income. An indication of the growth of clearings in these three principal countries, reduced to American money, is afforded by the following brief comparative table:—

YEAR	NEW YORK	LONDON	BANK OF FRANCE
1870.....	\$27,804,539,406	\$20,000,000,000	\$ 9,460,000,000
1880.....	37,182,128,621	28,200,000,000	14,530,000,000
1890.....	37,660,686,572	38,100,000,000	16,000,000,000
1899.....	57,368,230,771	44,600,000,000	28,370,000,000

This great structure of credit has grown up almost entirely within half a century, as a necessary factor in the new machinery of production and exchange. The early banks were conducted mainly with the capital of their own shareholders, and the fortunate few who had accumulated wealth by patient industry, colonial trading, or by more questionable methods. It remained for the last half of the century to bring to all the banks in the advanced civilized countries a flood of the saved capital of people of small and moderate means. The new conditions of production, with higher wages for labor, and the increase in the proportions of the professional classes, gave the ability to save, without the sacrifice of comforts, to hundreds of thousands of men, who, under earlier conditions, would have been barely able to maintain the struggle for existence. Hence came the great increase in deposits in the commercial banks and the creation of savings banks for the masses. There came also, as a necessary incident to the gathering of capital for the manufacturing and for railway construction, the issue of titles to wealth in a new form, representing divisible shares in these new enterprises.

This new form of wealth, almost wholly a creation of the free play of capital under modern conditions, consists of the shares, and bonds, of stock companies. The principle of limited liability, which applies to most stock companies, is of comparatively modern development. A limited company is one in which the shareholders are liable for the debts of the company only to the amount of their shares, or sometimes to double the amount, according to the law governing the subject. In the absence of such laws, they would be liable for all the debts of the company with their entire property as are the members of a private firm. The principle of limited liability permits a man to embark with many others, in a large enterprise, with exact knowledge of the amount that he risks. Few men would care to buy railway shares or bank capital if they ran the *risk* of having their entire fortunes appropriated to pay the debts of the railway in case it went into the hands of a receiver, or if they were compelled to pay all the depositors of a bank in case of failure. Limited liability is essential, therefore, to induce the owners of capital to go into such enterprises; it is, also, a matter of convenience in subdividing their expense, and in combining, under a single management, the savings of many hundreds, and even thousands, of persons. It permits the man with saved capital to invest it in profitable enterprises without exercising personal supervision over his investment, except so far as he wishes to participate in meetings of shareholders to secure honest and efficient control.

Government debts—the first form of negotiable securities—grad-

ually paved the way for the issue of railway bonds, and stock, and of shares in manufacturing, and other industrial enterprises. The remarkable growth in capital, and its issues, in the form of securities, is indicated by the fact that in 1789, the number of securities listed on the Paris Stock Exchange was only 17, and as late as the year 1815, the shares of only 30 companies were listed in London, 20 in Paris, and 11 in Berlin. In 1897, the number of French securities admitted to the official exchange was 493, representing a nominal capital of 59,142,400,000 francs, or more than eleven thousand millions of dollars. There were also admitted to the official stock exchange 236 foreign securities, representing French investments abroad of about 26,000,000,000 francs. Great Britain easily leads the world in the volume of her stock exchange business. The value of her securities was computed in 1895 at £7,246,902,726, or about \$36,000,000,000. This represents more than all the wealth of Great Britain or the United States at the beginning of the century, and perhaps more than all the wealth, exclusive of land, held in the civilized world at that time. A calculation, made under the auspices of the International Statistical Institute, in 1895, put the total transferable wealth of the leading European countries, including stock exchange securities, mortgages, and savings deposits, at \$85,000,000,000. An annual computation which is made in Brussels by the leading financial journal there, the *Moniteur des Intérêts Matériels*, puts the issue of new securities in Europe at 9,129,054,150 francs in 1896; 8,911,870,530 francs in 1897; 8,902,776,660 francs in 1898, and 10,577,406,550 in 1899. Thus not less than \$1,800,000,000 in new savings entered in the field in each of these years, seeking new investments.

These large issues of new securities have naturally been accompanied by a great increase in the number as well as in the capitalization of stock companies. An outburst of activity in the creation of such companies has been one of the marked features of industrial activity in the leading civilized countries. In Great Britain, the organization of companies was 1,302 in 1880, with a total capital of £168,466,322, which rose in 1890 to 2,789, with a capital of £238,759,472; in 1898 to 5,182, with a capital of £272,287,690; and in 1899 to 4,980, with a capital of £247,871,414 (\$1,200,000,000). The figures regarding the companies actually continuing in business from year to year, showing the sifting out of the incompetent, and the gradual additions to working capital of the more efficient, afford a more accurate test of the accumulated capital resources of the country. The total number of such companies was estimated in April, 1884, to be 8,692, with a paid-up capital of £475,551,294. The total rose more than 50 per cent. by April, 1890, when the number was

13,323, and the paid-up capital was £775,139,553. A further increase carried the number in April, 1899, to 27,969, and the paid-up capital to £1,512,098,098 (\$7,400,000,000).

In Germany, the organization of the empire under a common head, and the large fund of capital brought into the country by the war indemnity paid by France, resulted in a stimulus to the creation of stock companies, which caused the creation of 479 in 1872, with a capital of 1,477,700,000 marks (\$360,000,000), and 242 in 1873, with a capital of 544,200,000 marks. Then came the effects of the crash of the latter year, which reduced the organization of companies to a minimum of 42 in 1876, with a capital of 18,200,000 marks. There was a slight revival of activity in 1880 and in 1889, but it was only with the year 1895 that the creation of stock companies upon a more solid basis again attained striking figures. The number of companies organized in 1895 was 161, with a capital of 250,700,000 marks; 1896, 182 companies, with a capital of 268,000,000 marks; 1897, 254 companies, with a capital of 380,500,000 marks; 1898, 329 companies, with a capital of 463,600,000 marks; and 1899, 364 companies, with a capital of 544,400,000 marks (\$135,000,000). The growth of corporations in Russia has been even more remarkable. The capital of all stock companies organized during the nineteenth century, up to the close of 1899, was about 2,383,000,000 rubles (\$1,200,000,000), or as much as the issues of the single year 1899 in Great Britain. But of this amount more than half was authorized during the five years beginning with 1895. The highest record reached prior to that year was in 1890, when the issues of capital were 63,415,000 rubles. The issues for 1895 rose to 129,363,000 rubles; 1896, 232,640,000 rubles; 1897, 239,424,000 rubles; 1898, 256,237,000 rubles, and 1899, 358,354,812 rubles (\$187,000,000).

The equipment of the civilized world for grappling with the new conditions of transportation and exchange would still have been incomplete, in spite of the spread of the railways, and the accumulation of transferable capital, but for the series of inventions which promote quick communication. The post-office, the telegraph, the ocean cable, and the telephone, were an almost necessary supplement of the more substantial and visible instruments of the new economic order. In Great Britain and in the United States, the use of the mails doubled within the twenty years which closed the nineteenth century. The number of letters delivered in the United Kingdom of Great Britain and Ireland, rose from 1,165,000,000 in the fiscal year 1881 to 2,246,800,000 in 1900. The average number per capita rose in the meantime by more than 60 per cent., from 34 to 55. The number of newspapers and packets delivered increased by more than

130 per cent., from 364,000,000 in 1881 to 866,200,000 in 1899. In the United States, an exact account is not kept of the number of pieces of mail matter handled, but an illustration of the progress made is afforded by the number of postage stamps and other pieces of stamped paper which are sold at the post-offices. The number of pieces of stamped paper thus issued was 1,490,773,498 in 1881, representing a face value of \$34,483,503. The amount substantially doubled in 1890, when the number of pieces was 3,183,741,338, and their value was \$59,458,054, and nearly trebled for the fiscal year 1900, when the number of pieces was 5,283,687,010 and the face value was \$97,640,897. Thus, within nineteen years, with an increase of about fifty per cent. in population, there was an increase of nearly two hundred per cent. in the postal expenditure of the people, and their per capita postal expenditures rose from 70 cents to \$1.30.

In France, the number of letters passing through the mails increased more than sixty per cent. from 1860 to 1881, and nearly fifty per cent. from 1881 to 1898. The number of letters delivered in 1860 was 265,352,000, which rose in 1881 to 481,130,349, and in 1898 to 718,252,123. The increase was much more striking in the delivery of newspapers and other printed matter, which rose from 179,138,000 pieces in 1860 to 687,692,521 pieces in 1881, and 1,214,039,377 in 1898. In Belgium, the delivery of letters rose from 73,419,058 in 1880 to 146,496,146 in 1898, and the delivery of newspapers increased in nearly corresponding ratio, from 71,830,000 in 1880 to 122,451,701 in 1898. In Germany, the increase in letters received was from 565,528,000 in 1875 to 731,755,000 in 1880, to 1,437,948,000 in 1890, and to 2,181,924,000 in 1898. In Austria, the letters handled increased from 26,071,000 in 1850 to 148,499,000 in 1870, to 538,273,000 in 1890, and to 922,807,000 in 1898. The classification of packages differs, one country from another, but substantial uniformity, from year to year, within the country, permits comparisons which show the phenomenal growth of recent years.

The increase in the use of the telegraph and the telephone has been even more phenomenal. In Great Britain, the number of messages sent rose from 29,966,965 in the fiscal year 1881 to 62,368,034 in 1890 and 90,415,123 in 1900. A great increase occurred after 1885, when the minimum charge for an inland dispatch was reduced from a shilling (25 cents) to sixpence (13 cents). In the United States, the number of miles of wire operated by the Western Union Telegraph Company rose from 112,191 in 1870 to 874,420 in 1898, and the number of offices from 3,972 to 22,210. The number of messages sent increased in the same interval from 9,157,646, at an average charge of 75.5 cents. to 62,173,749, at an average charge of 30.1 cents. The Postal

Telegraph Company increased its length of wires from 23,587 miles in 1885 to 143,290 miles in 1898, while the number of messages rose from 1,428,790 to 15,407,018.

In France the length of telegraph lines rose from 70,277 kilometers (43,650 miles) in 1881 to 130,830 kilometers in 1898, and the kilometers of actual wire from 215,136 to 590,713 (366,800 miles). The number of messages increased within seventeen years by 116 per cent., from 18,561,038 in 1881 to 40,146,720 in 1898. The use of local telephones, which was not a factor in communication in 1881, amounted to 123,561,310 messages in 1898. In Germany, the length of telegraph lines rose from 15,048 miles in 1870 to 37,236 miles in 1880 and to 76,601 miles in 1898. The length of wire, which was 50,287 miles in 1870 and 132,476 miles in 1880, rose in 1898 to 314,405 miles. The number of home messages, which was only 4,731,919 in 1870 and 9,448,126 in 1880, was 26,186,021 in 1898. These figures are exclusive of Würtemberg and Bavaria, two large German states, whose telegraph mileage is more than 14,000, and where the number of messages sent in 1898, within the two kingdoms alone, was about 1,800,000 and the number sent to foreign countries and to other German states was more than 4,000,000. In Belgium, the mileage of lines rose only from 3,451 in 1880 to 3,961 in 1898, because of the comparatively complete equipment of the small area of the country on the earlier date, but the number of home messages increased more than 50 per cent., from 2,031,426 in 1880 to 3,113,715 in 1898, and the number of international messages by nearly 150 per cent. from 1,035,655 in 1880 to 2,523,654 in 1898.

The total length of the telegraph and cable wires of the world, according to an estimate presented by O. P. Austin, Chief of the Treasury Bureau of Statistics, at the beginning of 1899, was 2,300,000 miles. The length of the land lines was put at 662,000 miles, representing a cost of \$310,000,000, and the length of ocean cable lines at 170,000 miles, representing a cost of \$250,000,000.

What has been set forth in regard to producing power, railway equipment, banking power, and means of communication, represents in a sense the machinery of modern production rather than its results. This splendid equipment has been in operation for so brief a period that its full capacity has only begun to be tested, but already its powers have been demonstrated by a greatly increased manufactured product, an enlarged volume of trade between nations, and new standards of comfort for the masses of men. The aggregates of the world's commerce, already presented, almost fail of their proper impression by their very magnitude. It will be well, therefore, to set forth a little more in detail the progress of the closing decades of the nineteenth

century. From 1870 to 1900, the wealth of the United States rose from \$30,068,518,507 to \$94,000,000,000—an increase of 200 per cent. in a generation, while population advanced only half as rapidly,—from 38,558,371 to 76,295,220. The ratio of wealth per capita, therefore, rose from \$779.82 in 1870 to \$1,232 in 1890. Exports of American merchandise kept pace with the growth of wealth and exports of manufactured articles with phenomenal rapidity, when American prices were brought down to the level of those of the world after the panic of 1893. Some conception of the recent progress of this movement may be formed from these figures:—

MERCHANDISE EXPORTS FROM THE UNITED STATES

YEAR ENDING JUNE 30	TOTAL EXPORTS	EXPORTS OF MANUFACTURES	
		VALUE	PER CENT.
1860.....	\$ 316,242,432	\$ 40,345,892	12.76
1870.....	455,208,34	68,279,764	15.00
1880.....	823,946,353	102,856,015	12.48
1890.....	845,293,828	151,102,376	17.87
1895.....	793,392,599	183,595,743	23.14
1898.....	1,210,291,913	290,697,354	24.02
1900.....	1,394,483,082	433,851,756	31.55

The growth of wealth, and foreign trade, was equally remarkable in the case of Great Britain. Exports of British products were £51,308,000 (\$250,000,000) in 1840, and had already risen, in 1870, to £199,640,000 (\$975,000,000); but the amount rose in 1890 to £263,530,585. The increase was not material in later years, because the additions to British capital began to be employed abroad instead of swelling production at home. This resulted in making the borrowing countries tributary to Great Britain, who was able to take her dividends in a great excess of merchandise importations over exports. Imports of merchandise rose from £370,967,955 in 1885 to £485,035,583 (\$2,365,000,000) in 1899. The property and profits assessed for the income tax, which stood at the respectable total of £137,823,000 (\$680,000,000) in 1815, rose to £527,675,000 in 1877, to £626,356,000 in 1890, and £719,162,000 (\$3,500,000,000) in 1899. Thus the brief period of twenty-two years witnessed an increase of assessable property amounting to £190,000,000, or more than thirty-five per cent.

A necessary consequence of the increased productive power of the civilized world has been the increased comfort of the masses. While it is sometimes contended by those who have not carefully examined

the facts, that "the rich are growing richer and the poor, poorer," the statistics bearing upon the subject generally go to sustain only the first half of the proposition, and to disprove the last half. While it may be true that the distribution of the new wealth has not been altogether equitable, it has been almost inevitable that some portion should fall to the laboring masses, because of the employment of the great bulk of modern wealth in ministering to luxury or to new production. Wealth which is not kept in idle hoards tends to develop new industries, to increase the demand for labor, and to thereby raise wages by intensifying the competition for labor. There are several interesting statistical facts that tend to support the view that the comfort of the masses materially increased during the nineteenth century, and that the number of persons enjoying some of the luxuries of life greatly increased in proportion to the whole population. Careful inquiry by such competent authorities as Col. Carroll D. Wright, the United States Commissioner of Labor, shows that wages in all the chief lines of manual labor were much higher at the close of the century than at its beginning.

Advances in wages were slow during the Revolutionary, and Colonial, period, but the advance in mechanical industries began after the introduction of the factory system. In 1790, carpenters were paid less than 60 cents a day. This rose to \$1.09 in 1810 and to about \$1.40 in the North by 1840. Laborers, paid 43 cents a day in 1790, were receiving from 87.5 cents to \$1.00 by 1860. Shoemakers, who received 73.5 cents in 1790, were paid \$1.70 in 1860. The average wages during the ten years ending with 1860 gave to agricultural laborers, \$1.01 per day, to blacksmiths, \$1.69, to carpenters, \$2.03, to masons, \$1.53, to mill operatives, 87 cents.

Then came the great outburst of railway building, and machine industry, which made the closing decade of the century so notable in economic history. The subject of wages and hours of labor, during this period, was carefully investigated under the authority of the Senate Committee on Finance, by Professor Roland P. Falkner, in 1891. The result reduced all wages to percentages based upon those of 1860 as the unit. The figures showed that when wages were reduced to a gold basis, they averaged in 1840 87.7 per cent. of the wages of 1860. Then came the period of greenback issues during the Civil War, when wages in paper were high, but represented only 66.2 per cent. in gold of the rates of 1860. The upward movement was rapid as the premium on gold fell, and the gold wages of 1872, when prices were also high, were 152.2 per cent. of those of 1860. There was a fall during the years of depression that carried wages as low as 135.2 in 1876, but even at this time, their purchasing power was

probably quite as large as in 1872, because of the fall in prices of nearly all manufactured articles and of other necessities of life. Then began a new upward movement in gold wages, which carried them in 1880 to 141.5 per cent. of the rates of 1860, to 158.9 per cent. for 1890, and to 103.43 per cent. of the wages of 1891 for the year 1900. This upward movement of wages went on while the average working hours, which were 11.4 in 1840, fell to eleven hours in 1860, to ten and a half hours in 1870, to 10.3 hours in 1880, and to ten hours in 1889. This was the average of all leading mechanical industries, including some in which long hours still prevail, but others in which the time has fallen considerably below ten hours per day. Comparing the hours of labor with the rates of wages, it appears that the amount of money now paid is, substantially, twice that paid half a century ago for a day which is at least thirteen per cent. shorter than that under the smaller wages.

The upward movement of wages has been accompanied by the downward movement of prices. This proposition would seem a paradox, if there had not been so great an increase in the efficiency of labor by means of machinery. A simple average of prices for all commodities, taking 1860 as the unit, showed average prices for the five years ending with 1844, of 108.8; which advanced during the paper money period as high as 178.8 for the five years ending with 1869, but fell to 105.3 for the five years ending with 1884, to 93.2 for the five years ending with 1899, and to 92.3 for 1891. The purchasing power of wages, therefore, is considerably greater than is their nominal increase in money. If this fact is not clear to all wage earners, it is largely because there are so many articles, like glass, chinaware, wall paper, carpets, and finer grades of clothing, that are now considered necessities in the life of the laborer, but that were not enjoyed at all, or only in inferior qualities, when the productive power of the human race was smaller.

Definite proof of the increased consumption of high grade food products, by the masses, can be found in the statistics of certain countries. The British returns of colonial products imported per capita are among the most authentic of these statistics, and they reveal some astonishing results. The table on the following page shows the per capita consumption of sugar, tea, and tobacco, in the United Kingdom for representative fiscal years.

These figures show that within the past sixty years the consumption of tea by the British people has increased more than fourfold per head, and that the consumption of tobacco has more than doubled. The increase since 1880 has been more than 25 per cent. in tea, and an equal amount in tobacco. These figures show not only a great

(IN POUNDS PER CAPITA)

YEAR	SUGAR		TEA	TOBACCO
	RAW	REFINED		
1840.	15.20	.....	1.22	0.86
1880.	53.98	9.42	4.57	1.42
1885.	59.05	15.89	5.06	1.46
1890.	44.99	28.22	5.17	1.55
1895.	48.04	40.09	5.67	1.67
1898.	39.89	45.29	5.86	1.83
1899.	35.63	48.68	5.98	1.89

increase in the quantity of these articles consumed,—articles which would have been rated by the laborer of a century ago as unattainable luxuries,—but they show a surprising demand for the best article of its kind on the market, in the increased proportion of refined sugar used, in place of the brown raw sugar, which was so generally consumed, even by the well-to-do, before the price of refined sugar was forced down by competition, and by the adoption of the most efficient methods of refining.

With these proofs of larger earnings, shorter hours, and better living for the masses, may be put the evidence of wider opportunity through the increase in the numbers of the professional classes. This increase is due primarily to the fact that there is a larger surplus in the community than in previous generations, above what is required for food, clothing, and shelter. If the labor of four-fifths of the population were required to produce living necessities, in an early age of civilization, and some improvement in machinery or in methods of production enabled three-fifths to produce such necessities, it is clear that one-fifth of the population would be released for producing things which could not be enjoyed at all before. Hence comes the multiplication of lawyers, physicians, literary and pictorial artists, and the ability of civilized countries to bear a heavy burden of taxation for building roads, improving harbors, paving and lighting city streets, and for providing a complete education for every citizen.

The greater social wealth explains the remarkable increase in public expenditures, which has excited alarm in some quarters during the past generation. In Great Britain, the expenditures of 1871 were £69,548,539 (\$339,000,000), but this amount rose in 1899 to £108,150,236 (\$540,000,000),—an increase of more than fifty per cent. within a generation. If the charge for interest on the debt and sinking fund were taken out, amounting to about £25,000,000 per year, the advance on account of other expenditures would be from about

£45,000,000 in 1871, to £83,000,000 in 1899, an increase of about 84 per cent. within a generation. In the United States, the expenditures of the Federal Government were only \$1.39 per capita in 1842, and had risen in 1860 only to \$2.01 per capita. Within less than a generation, in 1886, expenditures per capita had risen to \$4.22. This was the lowest point touched after the Civil War. Expenditures rose in 1897 to \$5.01 per capita, or to two and a half times what they were in 1860, and in later years, under the influence of the War with Spain, to still higher figures. In France the entire public budget in 1812 was about \$255,000,000, which has been increased in recent years to more than \$600,000,000.

If these figures tend at first to cause misgivings, they take on a different aspect when the objects of expenditures are examined. The increase in expenditures has been applied largely to improvements which would not have been possible under the scale of production prevailing a century ago, or a generation ago. While grinding taxation under the old *régime* in England, France, and other countries, supported a few of the ruling class in magnificence, roads were bad, harbors where unimproved, city streets were badly paved, sanitation was ignored, there was no efficient protection against fire, and thieves and other criminals pursued their calling almost unwhipped of justice. Under modern conditions, the many enjoy the proceeds of public taxation, which formerly went for the luxuries of a few. Fine roads, safe harbors, well-paved streets, fine parks, are only a few of the many benefits conferred by the modern system of taxation. Many branches of scientific inquiry, tending to new discoveries and to length of life, are now conducted under the government supervision, while an efficient police system, scientific sanitation, and popular education, have become the common-place privileges of the citizen of the modern state.

How rapid, and how essentially recent, has been this growth in the public services extended to the masses, may be judged by a few illustrations. In the United Kingdom of Great Britain and Ireland, in the fiscal year 1868, total expenditures for local purposes were £36,132,834 (\$176,000,000). The amount of such expenditures rose to £70,708,002 in 1891, and to £103,137,817 (\$503,000,000) in 1898. Here was a nearly threefold increase in thirty years. Examination of the items shows that expenditures for police, sanitation, and other public institutions, rose from £14,423,632 (\$70,000,000) in 1868 to £35,502,816 in 1891, and to £54,632,147 (\$266,000,000) in 1898. Expenditures by harbor authorities swelled from £2,581,796 in 1868 to £5,598,263 in 1898. The expenditures by school boards were not given in 1868, but were probably not more than £4,000,000. The amount in 1885 was only

£6,385,207, but this increased in 1898 to £12,304,456 (\$60,000,000). Thus while total expenditures increased nearly threefold, expenditures for those objects which directly serve the comfort and education of the people increased much more than threefold. In the United States, according to some statistics carefully prepared by Secretary Gage, salaries paid to school teachers rose from \$37,832,556 in 1870 to \$55,942,972 in 1880 and to \$123,809,412 in 1899. River and harbor improvements, for which only \$221,973 was spent in 1860, and only \$8,976,500 in 1880, required \$20,785,049 in 1898. The lighthouse establishment, which cost \$835,373 in 1860 and \$1,767,515 in 1874, called for \$3,556,840 in 1900. The postal service, which called for an expenditure of only \$29,084,946 in 1873, called for \$65,930,717 in 1890, and for \$109,585,358 in 1900. That even in the colonial establishments, public expenditure is now devoted largely to objects of benefit to the people, is shown, in a striking manner, by the budget for the French province of Algeria for 1901. Out of a total proposed expenditure of 55,237,675 francs (\$11,000,000) nearly one-half was for the five items, education, justice, public works, agriculture and forests, and postal and telegraph service. Public instruction called for 6,656,629 francs; justice, 2,731,300 francs; public works, 10,760,130 francs; agriculture and forests, 4,326,434 francs; and postal and telegraph service, 6,424,544 francs.

These figures illustrate only a few of the many services rendered by modern governments to the people. The growth of commerce, and the struggle among the nations for commercial power, are producing new conditions, which call in some cases for the aid of the state in performing works which could not well be performed by private enterprise. The building of ocean-going steamers of nearly thirty feet draft requires the deepening of harbors to float them. Hence the call, within the last few years, for liberal appropriations for such purposes. First-class dock privileges, perfect systems of buoys and lighting, and thorough surveys of dangerous coasts, are a part of the machinery of modern commerce which no government can neglect without endangering millions of valuable property, and putting its people at a disadvantage in the struggle for commercial power. The best technical, as well as the best general, education is another factor in the efficiency of competition between modern peoples, and money spent by the state in such education is likely to be repaid many fold by the superiority in technical skill and by the capacity for conducting great enterprises, which are given profitable direction, if they are not created, by proper education.

Increased productive power, and increased earnings among the mass of men, largely the result of machinery and of modern methods

of transportation, afford the means for paying heavier taxes and for obtaining the benefits of modern education, sanitation, and commercial development. These charges have perhaps increased in a larger proportion than has the total increase in income, but a little consideration will show that even this condition does not impose undue burdens. If the entire efforts of a community were required in early times to produce its food, clothing, and shelter, and a surplus large enough to maintain the bare rudiments of government and professional life, most of the surplus resulting from increased productive power under modern conditions is available for the last two objections alone. Let it be supposed that the productive power, in 1870, of the average individual in the community was represented by eleven units, and that ten of these were required for food, clothing, and shelter, leaving the additional unit for taxes, amusements, and luxuries. It is clear that if productive power were increased by only one unit, the amount which could be spent upon better public service, and paid to the professional classes for better medical service, more careful protection of legal rights, artistic enjoyment, and for other luxuries of living, would be doubled. An increase of one more unit, representing only one-eleventh of the original productive power, would permit three times the old rate of expenditure for the less necessary and higher things of life. This simple mathematical statement makes clear some things, otherwise puzzling, in modern industrial development. It shows, in a way, why increases in taxation, in the number of the official classes, and in the expenditures of the people for luxuries and amusements have multiplied many times in recent years without the effect, which has been feared in some quarters, of impairing the savings of the masses or the wealth of the community. While much remains to be done, therefore, to increase the productive power of the world, and a better distribution of the earnings of the community may become possible in the future, it is evident that progress has been made within the last century, and especially within the last generation, which offers a bright promise for the future of humanity.

OPPORTUNITIES IN THE CIVIL SERVICE

By JOHN R. PROCTOR

President of the United States Civil Service Commission

(INTERVIEW)



I N OUR national life, the civil service is a factor of great and constantly growing importance. It now gives employment and adequate incomes to over one hundred and eighty thousand persons; and the number is increasing steadily. Our recent territorial acquisitions have, of course, added materially to the necessary executive work of the government, and have made many new positions in the civil service.

Thousands of young men and women have turned their attention to it, asking themselves the question—What kind of a career would the civil service give me, and how can I obtain a place in it? My answer to the first question may seem somewhat trite, for I must state that in the civil service, as in most other spheres of activity, everything depends upon the person. There is a more or less widespread belief that the great majority of government employees, being always subordinate, with work confined to a fixed routine, lose initiative power. Again I say that it all depends upon the person. In the same degree that much of the work is not of the kind likely to broaden the mind or stimulate the higher faculties, it may have a deteriorating effect, but this negative influence will certainly not deter the young man of stamina in the service from self-development. As in any other work that requires system and close application, he will learn the value of order and regularity, and will acquire mental discipline and special training. Many young men and women use the civil service as a stepping-stone. In Washington, lectures are nightly delivered at the Columbian and the Georgetown universities, where the departments of law, medicine, political economy, engineering, and chemistry have so arranged courses and hours for instruction as to accommodate students employed during the day in the departments of the government. Several hundred young men annually graduate from these institutions, and the majority, ambitious for greater rewards than are found in government employ, gradually resign their clerkships, and frequently rise to prominence in other occupations. It

is a common occurrence for a young man to step from the ranks of government employees directly to an important position in a mercantile business.

But more able young men are remaining in the civil service than formerly, and more are seeking places in it, a condition which is due chiefly to the extension of the service and the merit system to our recently acquired possessions. The new territory requires new methods of administration, and thus a man in a position of any authority has, as a rule, more opportunities to demonstrate ability and originality than he has in the service here at home, where all methods have become more or less fixed by years of procedure. This is why so many of our younger employees and others are anxious to serve the government in the Philippines. This desire is encouraged. We are anxious to obtain the best possible ability in the insular service, since the success of the government in the Islands will depend chiefly upon the men who are sent to administer their affairs.

We must keep faith with the Filipinos, whom we have promised an honest, economical, and efficient government, and we must "make our record" in colonial administration before the nations of the world, who are watching us with jealous interest. Our rule will not be merely contrasted with the misrule of Spain; it will be put in the scale with the admirable governments which Great Britain and Holland give to their colonies. In the colonial administration of these countries, there are three rules which should have a dominating influence in our own policy; therefore I set them down, as follows: First, the civil servants are not disturbed by political changes in the home government, the tenure of office being determined solely by good and efficient service; second, the men sent to govern the colonies are selected because of special fitness, and are promoted generally from the small colonies to the larger, after demonstrating their ability to deal with difficult problems; third, the officers charged with collecting the revenue, both internal and customs duties, are promoted to these places after faithful and effective work in minor grades, and are never appointed as a reward for political service at home. The clerkships in the customs and other departments are filled by open, competitive examination. The pay in all cases is commensurate with the duties performed; persons in the colonial service are prohibited from engaging in business enterprises in the colonies.

Under the common-sense business methods suggested by the above rules, Great Britain controls the once turbulent population of Jamaica with no military aid but a garrison of four hundred soldiers, while Spain, using the spoils system, was unable to keep Cuba in subjection with two hundred thousand men. With these two examples looming up conspicuously, no national leader possessed of a grain of patriotism can be in

doubt an instant as to what our colonial policy must be. Failure in the Islands would bring great calumny and reproach upon the fair name of the United States, and would give us a tremendous setback in national progress. We must win new glory in our control of the weakling peoples who have come within our care, and to accomplish this, the government must call to its aid the best and most representative young American manhood.

The material it has to choose from is of the finest kind. We are justified in hoping and expecting that when our system is thoroughly organized we shall excel even Great Britain and Holland in colonial government, for the reason that the training given to young men in this country makes them better qualified to grapple with new conditions than does the training received in any other country. As is well known, young American men are managing many industrial and commercial enterprises most successfully. It is men of this caliber that we want. We must compete with private concerns for their services, and can hope to obtain them only by offering fitting pay, and a tenure of place and opportunities for promotion dependent solely upon efficient work. This we expect to do.

The positions in the insular administration, as in the service generally, are divided into parts, the "classified" and the "unclassified." In the former division are all the places which are subjected to the Civil Service Act and rules. These positions are filled by original appointment, through examination and certification by the Civil Service Board; by promotion of a person in the classified service to a vacant position; by reinstatement of a person formerly in the service; and by transfer from one position to another.

Some of the employees in the classified lists are as follows: All whose duties are principally those of bookkeepers, chiefs and other clerks, draftsmen, engineers, examiners, inspectors, interpreters, janitors, letter-carriers, machinists, messengers, printers, stenographers, and watchmen, all of whom are put in one group. Another group is made up of employees who possess higher general attainments or greater technical knowledge. Among these are: Heads of departments and officers in the municipal service in Manila, physicians, bacteriologists, chemists, veterinarians, civil engineers, cashiers, disbursing officers, and most other incumbents of professional, technical, and scientific positions. Skilled and unskilled laborers are also in the classified division, being employed in the order of their application, after an oral examination on and inquiry into habits and experience.

The Philippine Civil Service Board advises persons able to fill only such positions as those of under clerks, messengers, watchmen, and other minor employees, not to seek service in the Islands. For Americans in

clerical and other places which Filipinos are able to fill, there will be little demand, since the government has promised to employ as many natives as possible. Moreover, the salaries for work of this grade will not be sufficient to warrant Americans to go to the Philippines, nor will the examinations for these positions be held in the United States. For places requiring special training or ability, such as those of stenographers and typewriters, Spanish interpreters and translators, bookkeepers, and customs inspectors, there is a demand, but not so great a one as for Americans possessing professional, technical, or scientific training, or special clerical ability. It is positions such as the latter that offer the best opportunities to Americans in the Philippines. The higher places, however, are usually filled by promotion, the board's intention being to establish a permanent civil service, so administered that a person who enters one of the lower grades may, by loyal and efficient work, secure promotion to the highest offices in the service.

Some of the unclassified employees, that is, those who are appointed without regard to the Civil Service Act, are as follows: The treasurer of the Islands, the auditor, the collectors of customs, the collectors of internal revenue, the director of posts, the head of the bureau of forestry and mines, the general superintendent of public instruction, the members of the Civil Service Board, the chief statistician, the cashier of the collector of customs, the captain of the Port of Manila, one private secretary for the military governor and one for each member of the Philippine Commission, members of the police and fire departments of Manila, guards at the prisons and penitentiaries, and teachers in the public schools.

The teachers were put in the unclassified list on account of the urgent need of quickly securing a large number. These must be either normal school or college graduates, and at the time of their engagement must be employed as teachers. The teachers, however, will sooner or later be put in the classified division. When the condition on the Islands becomes more settled, it is expected that policemen, firemen, and prison guards will also come under the supervision of the board. Indeed, it is the intention to ultimately classify all positions in the insular service, with a system of promotions for filling the highest places. This end will be attained gradually, as, by degrees, a thorough organization of an insular government is effected. Thus, in the civil service ambitious young men will find numerous positions worth aspiring to, and ample opportunities to reach them through faithful and able work. The civil service policy will, in general, be the same in the Philippines, Porto Rico, and any other territory that may come under our jurisdiction. In making appointments, preference is given, other things being equal, to natives and honorably discharged soldiers and sailors.

While examinations are, and will be, the means of giving a man his initial footing in the service, these examinations are not by any means all scholastic. Tests of this kind have been found to answer the purpose in selecting candidates for clerical positions, but there are many others for which a scholastic examination is wholly inadequate. For work which requires high scientific, professional, or executive qualifications, and for work at trades, recent examinations have aimed at bringing to light, not the amount of theoretical knowledge which a man may be able to spread on paper, but the extent of his experience and practical ability.

In the civil service at home, as well as in our new possessions, the merit system, as opposed to the patronage system, is being extended steadily. Since the enactment of the Civil Service Law, in 1883, the government has received very much more effective and economical service from its employees, and grave dangers growing out of the spoils system have been averted. Because the tenure of office has been made to depend upon competency and not upon political influence, the level of capability has been greatly elevated. Long observation has taught me that almost invariably the employee with the most political influence is the most incompetent. Much money has been saved by the abolition of useless offices, and the working efficiency of the heads of departments has been materially increased by the fact that these gentlemen are not now forced to give a large part of their time and attention to importunate place-seekers with political backing.

The number of places in the United States now filled by the Civil Service Board approximates eighty thousand, while those which have not yet been classified amount in number to about one hundred and two thousand. Of the latter, seventy-one thousand are the positions of fourth-class postmasters. Of all of the places in the service, about nineteen thousand five hundred are in the District of Columbia, and one hundred and sixty-two thousand in other localities. The annual aggregate of salaries is now about \$104,000,000, which expenditure shows an increase of about \$4,000,000, since the Spanish War.

Under the civil service system, the government clerk has practically a life tenure, if his record be unassailable. A young man who enters the service at Washington when twenty years of age is usually paid nine hundred dollars a year, although in some cases the initial salary is seven hundred and twenty, or eight hundred and forty dollars. At twenty-five he is in all probability receiving twelve hundred dollars, and at thirty he ought to be drawing sixteen hundred dollars. The maximum salary for clerical work is eighteen hundred dollars, which is gained in the majority of cases only after a long term of service, the promotions from sixteen hundred to eighteen hundred dollars being much less frequent than those from twelve hundred to sixteen hundred. The candidates for

appointment who are able to pass the examination for stenographers are much more sure of receiving places than others, one-fourth of the demand upon the Civil Service Commission being for stenographers and typewriters. Only a small percentage are used as such, but their technical skill and training give them a superiority over other clerks. Next to stenographers, experienced accountants and bookkeepers are most in demand. Such clerks are useful from the beginning, while others, whose knowledge is chiefly theoretical, require months of careful training.

During the last fiscal year, two hundred and eighty-eight different kinds of examinations were held for vacancies in the classified service. The latter embraces the places in the executive departments; the railway mail service, the Indian service, the several pension agencies, the steamboat inspection service, the marine hospital service, the lighthouse service, the life-saving service, the several mints and assaying offices, the revenue cutter service, the force employed under the custodian of buildings, positions in the sub-treasuries, the engineering department at large, the ordnance department at large, the custom house service, the post-office service, which includes the officers and employees in all free delivery post-offices, the Government printing service, and the internal service. A few confidential employees, such as private secretaries, are exempt from examinations, as are Indians applying for certain classified positions in the Indian service.

There are three general classes of examinations. In the first class are those for about seventy-two per cent. of the positions under the supervision of the board. To pass the examinations in this class, a common school education is a sufficient preparation. The positions are those of clerks in the departments, in the railway mail service and post-office service, letter-carriers, and some others. These examinations are divided into three grades. The third grade requires merely the ability to read, write, and solve simple examples in whole numbers. The second grade requires a somewhat higher general education, including a knowledge of simple operations in common and decimal fractions. In the first grade is required a knowledge of the use of the English language in business correspondence, and such mathematical operations, including interest and discount, as are necessary to solve ordinary business problems.

In the second general class of examinations are about two per cent. of the whole number. These embrace, in addition to general education, special or technical knowledge, such as is needed to fill the positions of stenographers, draftsmen, weather observers, examiners of the Patent Office, civil engineers, and others. Most of these positions demand scholastic ability above the average, as well as considerable special training and experience.

The third general class are the trade examinations, embracing about twenty-two per cent. of all examinations. They involve no scholastic test. Applicants are accepted who prove themselves satisfactory in ability as workmen, in experience and in physical qualifications. Only men in sound health are employed.

About fifty thousand persons are examined annually in the classified service, of whom three-fifths are applicants for places in the departmental service; one-fifth for post-office places, and about one-eighth for the customs service. About one in four of those who take the examination fail to obtain the mark of seventy per cent. necessary for a place on the eligible list. But the gaining of this place is no assurance of appointment, since only a small percentage of those who pass the examinations are selected. Candidates whose marks are highest are chosen first. The term of eligibility is one year.

Since a great many women seek employment in the service, a statement as to their chances of appointment as compared to those of men may be instructive. This comparison is best brought out by statistics. The records of the last decade show that during this period 40,928 persons passed the examination for post-office clerks, which are the only places in that department for which both sexes may compete. Of this number, 8,640 were women. About 1,300 were appointed, 352 of whom were women. For all positions for which both men and women are eligible, 77,445 persons, of whom 16,832 were women, have passed the examinations during the last ten years. Through these examinations 17,844 persons have been appointed, the women among the appointees numbering 1,663, or a little over nine per cent., while the proportion of appointments among the men has been about twenty-six per cent. For positions for which men are not eligible, 7,381 women have passed the examinations, and 1,813 have been appointed. Altogether, 24,213 women have passed the civil service examinations during the last ten years, and 3,476, or about fourteen per cent., have been appointed.

CIVIL SERVICE

ADVANTAGES AND DISADVANTAGES OF GOVERNMENT EMPLOYMENT — TENURE OF OFFICE MORE SECURE THAN FORMERLY — EFFICIENT STENOGRAPHERS AND TYPEWRITERS ALWAYS IN DEMAND — THE POWERS OF THE CIVIL SERVICE COMMISSION — SCOPE OF EXAMINATIONS FOR CLERICAL APPOINTMENTS — REASONS WHY MEN ARE PREFERRED TO WOMEN — ADMISSIONS TO WEST POINT AND ANNAPOLIS — CANDIDATES APPOINTED BY PRESIDENT ON RECOMMENDATION OF REPRESENTATIVE OR SENATOR — PHYSICAL EXAMINATIONS VERY SEVERE — ACADEMIC EXAMINATIONS EMBRACE WIDE RANGE OF SUBJECTS — PAY OF MILITARY AND NAVAL CADETS.

THERE is a popular belief that the young man who enters the civil service has made a mistake. It is argued that promotions are slow, the tenure of office uncertain, and the salaries small. The objections that the experience gained is of little value in ordinary business, and that a clerk dismissed from the service in middle life is at a disadvantage with other men trained to commercial pursuits, are perhaps the most forcible. These general views are mainly correct, yet it is significant that government appointments are eagerly sought by men, both young and old. It may be a mistake for a clever young man to bury himself for years in a government office, to reach an average salary of sixteen hundred dollars a year; for a clever man might, in the same time, greatly advance his fortunes, and attain a much larger income.

But all men are not clever in the money-making sense, nor are all clever men fortunate, and to such sixteen hundred dollars a year is a desirable income, larger than ordinary ability could earn outside, and free from the mischances of private business.

The tenure of office is more secure now than in former years, when appointments were made as rewards for political services, and not upon the ascertained fitness of the candidate. Of the ten thousand clerks employed in the Executive Departments at Washington probably one-fourth have been in continuous service for a score of years or longer, and quite as many, for half of that time. Under the civil service system, a government clerk has practically a life tenure, if his record be unassailable.

The careless or shiftless clerk—he who does not report promptly for duty, and who seeks every opportunity to obtain “a day off”—stands on an insecure footing and is liable to dismissal at any time.

Such clerks seldom survive a change of administration, for with the incoming of new officials, the record of all employees is carefully inspected, and the least desirable, unless fortified by strong political influence, are marked for dismissal. And in this connection it should be said that the standard of efficiency is constantly rising in every branch of the government service. This is because the applicants for government clerkships are now largely young men and young women, graduates of public schools, academies, and even universities, who have enjoyed the advantages of a higher education than did those who came in under the former system. It is disputed by disciples of the "practical" school of politics, that the highly educated clerk renders better service than one who has had only a grammar school training. But it has been proved that these discharge more readily a wider range of duties; they are more amenable to discipline, and the quality of their work is distinctly higher.

Although the intellectual capacity of the candidate is of prime consideration, another important factor is his actual experience. These are days of specialization in business, and the government is following, so far as it can, a similar course. It is undeniable that a candidate who has been practically engaged as a stenographer, typewriter, bookkeeper, or accountant, is better fitted for general departmental work than one whose knowledge is merely theoretical. Such clerks are useful from the beginning, while the others require months of careful training. A practical knowledge of stenography and typewriting, other things being equal, is the surest recommendation to a clerkship at Washington, and in the government service generally. One-fourth of the demand upon the Civil Service Commission is for stenographers and typewriters. Only a small percentage are used as such, but their technical skill gives them a superiority over their fellow-clerks. Next to stenographers, experienced bookkeepers and accountants are most esteemed.

The demand for woman clerks, except in certain lines of work for which they are especially adapted, is limited. This is not due to mental inferiority, for women pass better examinations than do men. The records of the Civil Service Commission show a marking for women of five per cent. above men. But usually they are lacking in actual business knowledge, and this places them at a disadvantage.

A young man who enters the government service at Washington when twenty-one years of age, would be paid nine hundred dollars a year. In some cases, the initial pay does not exceed seven hundred and twenty, or eight hundred and forty, dollars, but the average is nine hundred. At twenty-five, he would, in all probability, have been promoted to twelve hundred dollars, and at thirty, he ought to be

drawing sixteen hundred dollars. The maximum salary for clerical work is eighteen hundred dollars, and this is gained, in the majority of cases, only after a long term of service, the promotions from sixteen hundred to eighteen hundred dollars being less frequent than those from twelve hundred to sixteen hundred dollars. In the matter of vacations, the government clerk is exceptionally favored. He is entitled to an annual leave of thirty days, with pay, and by a little skillful manœuvering, the time is frequently extended to five weeks. He may, in addition, be absent another thirty days on "sick leave," with his pay continued, if he furnishes a physician's certificate of inability to perform his duties. It must be remembered, also, that the departments are closed on Sundays, and on legal holidays.

It follows, therefore, that the man of modest tastes, who is content to drift quietly along the smooth currents of life, with no inclination for a business career, for the excitement of "the street," or the uncertain rewards of politics, would be fortunate to receive a government appointment at Washington. Such a man could well take issue with him who called his vocation a mistake, and from his sure position could argue eloquently that his career, while lacking brilliancy, and great pecuniary gain, offered a refreshing contrast to the strenuous life, or to the feverish pursuit of fame or wealth, that too often ends in failure. He could show, additionally, that his easy office hours, from nine to four, afforded him abundant opportunity for mental profit. In Washington, for example, lectures are nightly delivered at the Columbian and the Georgetown Universities, where the departments of law, medicine, political economy, engineering, and chemistry, have their courses and hours for instruction so arranged as to accommodate students employed during the day in the Executive Departments. From these institutions, several hundred young men annually graduate. Some retain their clerkships after graduation, from a reluctance to leave the fascinations of Washington life to practise their acquired professions in less attractive localities; but these are the exceptions.

Upon his office record, depends the clerk's advancement, for political influence is becoming, year after year, less effective in securing promotions. If the clerk be attentive to business and show a desire to master the details of his work, he has taken a long stride toward an increase of salary. Much depends upon his good fortune in attracting the attention of his superiors. Sometimes men of exceptional ability are assigned to duties that hide them from the official eye for years, so that it is long before their services are recognized and rewarded. But these instances are rare. Speaking generally, the busy, wide-awake, up-to-date clerk, who is not afraid of work, but who is,

rather, always looking for it, reaches the top of the departmental ladder in a short term of years. Sometimes it comes sooner, as the following example will show:—

One morning, before the regular office hours, the assistant secretary of a department at Washington called for a stenographer. Half a dozen messengers went scurrying through the corridors, and their united search resulted in finding one clerk, a young man recently appointed, who was already at his desk, arranging the details of the day's work. The assistant secretary was so impressed by that circumstance, as well as by the skill and intelligence of the stranger, that a few weeks later, when a new office, carrying a salary of two thousand dollars a year, was created, it was given to the young stenographer.

It will now be timely to explain how appointments in the civil service at Washington are made. From the foundation of the government until 1883, the clerkships in the Executive Departments were controlled by politicians. "What are we here for, except for the offices," exclaimed a delegate at a presidential convention, less than a score of years ago, and the storm of applause that followed his query showed that he had struck a responsive chord in the breasts of those present. In those days, men were appointed to clerkships, and to minor official positions, as a reward for their political activity, while efficient clerks, without political influence, were ruthlessly dismissed, to be too often succeeded by inexperienced, and even incompetent party workers. One result only was possible—the public service was greatly demoralized, the clerks were terror-stricken at each quadrennial election, and the standard of work was very far below that of a well-regulated business house. Whence it followed, after a long agitation, that Congress in 1883 passed what is known as the civil service law. The act created a United States Civil Service Commission, composed of three members, not more than two of whom may be adherents of the same political party. The purpose of the law is to establish, under rules prepared by the Commission, a system of appointments to the governmental service based upon the intelligence and fitness of candidates, without regard to political considerations. Properly to carry out this purpose, a plan of competitive examinations was prescribed.

The term "classified service" indicates the appointments which come within those provisions of the civil service law that require appointments to be made upon examination and certification by the Commission. The term "unclassified service" applies to those appointments that are not affected by the law, and these, therefore, are made without competitive examination, and usually on the old plan. The classified service has been gradually extended until now it

includes about 90,000 positions, leaving about 110,000 positions unclassified. The unclassified list is mainly composed of those who perform unskilled manual labor. Under the terms of the law, positions outside of the executive branch of the government, or to which appointment is made by the President, and confirmed by the Senate, and positions of mere unskilled manual labor, are not required to be classified. Within these limitations the President is authorized, in his discretion, to extend the classified service. During the fiscal year ending June 30, 1900, no less than 10,000 classified appointments were made, showing the hold the new system has already gained.

The Civil Service Commission has no power of appointment or removal; that power is left where it was before, in the President or in the heads of Departments. Upon requisition of an appointing officer, the Commission certifies eligibles secured as the result of a competitive examination. From the eligibles thus provided, the appointing officer makes his selection and appointment. When the Commission certifies three eligibles for any particular position, the appointing officer has absolute discretion in making the selection, except that the rules require that it shall be made without regard to political considerations. No person is eligible to an examination:—

Who is not a citizen of the United States ;

Who is physically disqualified for the service he seeks ;

Who is addicted to the habitual use of intoxicating beverages, to excess ;

Who is enlisted in the United States Army or Navy, and has not secured permission for his examination from the Secretary of War or the Secretary of the Navy ;

Who has been dismissed from the public service for delinquency or misconduct within one year preceding the date of his application ;

Who has failed, after probation, to receive an absolute appointment to the position for which he again applied within one year from the expiration of his probationary service ;

Who within one year has taken the same kind of examination for which he wishes to again apply : provided, that persons who pass or fail in an examination may, upon filing a new application, be reëxamined at the next annual examination, though a full year has not quite elapsed since the former examination ;

Who has made a false statement in his application, or has been guilty of fraud or deceit in any manner connected with his application or examination, or who has been guilty of crime, or of infamous or notoriously disgraceful conduct.

The age limitations for entrance to positions in the different branches of the service are given on the following page.

The regular examinations for the Departmental, and Government Printing, branches of the service are held in the spring and autumn. The spring examinations occur usually in the months of March and April, and the autumn examinations in September and October. The Internal Revenue examinations are held only in the autumn. Information as to appointments in custom-houses and post-offices may be gained by inquiry at those places.

AGE LIMITATIONS

	MINIMUM	MAXIMUM
DEPARTMENTAL BRANCH:—		
Page, messenger boy, apprentice, or student.....	14	20
Printer's assistant and messenger.....	18	No limit
Positions in the Railway Mail Service.....	18	25
Hospital stewards in the Marine Hospital Service	21	30
Cadet in the Revenue Cutter Service, and aid in the Coast and Geodetic Survey.....	18	25
Surfman in the Life Saving Service	18	45
Superintendent, physician, supervisor, day school inspector, and assistant inspector, of hulls, and inspector, and assistant inspector, of boilers in the Steamboat Inspection Service.....	25	55
All other positions.....	20	No limit
<i>(The age limitation does not apply in the case of the wife of the superintendent of an Indian school who applies for examination for the position of teacher or matron.)</i>		
CUSTOM-HOUSE BRANCH:—		
All positions	20	No limit
POST-OFFICE BRANCH:—		
Letter carrier	21	40
All other positions.....	18	No limit
GOVERNMENT PRINTING BRANCH:—		
All positions (male)	21	No limit
All positions (female)	18	No limit
INTERNAL REVENUE BRANCH:—		
All positions	21	No limit

The application blank and Manual for the Departmental, Government Printing, and Internal Revenue, branches of the classified service may be obtained by writing directly to the United States Civil Service Commission, Washington, D. C. Every applicant must, however, write for his own application blank, as it is contrary to the practice of the Commission to forward blanks to one person for the use of another.

It is not necessary to seek the aid of prominent, or presumably influential, persons to secure an application blank or an examination; and no recommendations other than those provided for by the Commission should be forwarded, as the rules forbid the filing or any such letters with the application.

No person will be admitted to a scheduled examination who has not previously filed, on the form furnished by the Commission upon

request of the applicant, the proper application for the particular examination that he seeks. For some examinations, a supplementary blank will be required in addition to the regular application blank, and both blanks must be executed, and forwarded to the Commission.

Full instructions for the execution of the application will be found on the blank itself, and applicants are cautioned to answer all questions, and to conform in all respects to the printed instructions. A failure to do this causes unnecessary delays, and great annoyance to the applicant, as well as to the Commission. Very many applications have to be returned for correction, on account of carelessness in the execution of the application or its appended vouchers.

Applicants for the Departmental and Government Printing branches of the classified service may be examined at places, selected from the schedule, outside of their own state, if more convenient, provided the date and place selected for examination be indicated in the application; but applicants for the Custom-house, Internal Revenue, or Post-office branches of the classified service must be examined in the custom-house or internal revenue districts, or at the post-office, in which they desire employment.

Persons who are examined, whether they pass or fail, are not eligible to reëxamination for the same position, or for any position covered by the same examination, until approximately one year after the date of the former examination. Unless the needs of the service require otherwise, special reëxaminations within a year will be granted only in cases in which injustice has been suffered by act of the Commission or one of its agents. When an applicant has been unable to do himself justice on account of illness occurring after the commencement, and during the progress, of the examination, such applicant may, upon filing a new application, be reëxamined at the next regular examination, provided he has submitted a sworn statement of the alleged facts which will justify the Commission in granting the reëxamination. An applicant who is recovering from illness must abide by the result of his examination, whether or not he states in his declaration sheet that he is physically unable to do himself justice.

No application for the Railway Mail Service will be approved when the applicant is shown to be less than 5 feet 4 inches in height or less than 125 pounds in weight, or to have any disqualifying physical defects.

No application for any one of the mechanical trades in the Government Printing Office will be approved unless the applicant is shown to have served at least five years at the trade for which he applies, three of which years he must have served as an apprentice, and at least one year as a journeyman.

The general scholastic subjects of any examinations, such as spelling, arithmetic, letter-writing, and copying from plain copy, are of three grades or degrees of difficulty, known as first, second, and third grades—the first grade being the most difficult and the third grade the least difficult. More importance is attached to the examination in arithmetic than to that in any other subject. The following questions and tests indicate the general character of this examination:—

Arithmetic.—This question comprises a test in adding numbers crosswise and lengthwise. There are usually three columns of about twelve numbers each to be added. Divide $47\frac{1}{2}$ by $7\frac{1}{2}$, multiply the quotient by 34, and to the product add 0.0907 of 2146. A grocer sold goods to a customer, amounting to \$352, by weights averaging $15\frac{1}{2}$ ounces to the pound. He afterward sold to the same customer goods amounting to \$320, by weights averaging $16\frac{1}{2}$ ounces to the pound. How much did the grocer make or lose by the false weights? The appropriation for the Civil Service Commission for the fiscal year, ended June 30, 1897, was \$68,320. During that year 30,000 persons were examined. If 34 per cent of this number failed to pass, and 17½ per cent of those who passed were appointed, what was the average cost to the government of each appointment? A sum of money placed at simple interest amounted in 1 year and 6 months to \$2,687.50. If it had remained at the same rate of interest for six months longer, it would have amounted to \$2,750. What was the rate of interest per annum?

Spelling As Dictated by the Examiner.—The words are written by the competitor in the blank spaces indicated on the first sheet of the examination paper. The examiner pronounces each word and gives its definition.

Letter Writing.—The competitor is permitted to write on either of two subjects given. The following subject has been used: Write a letter of not less than 150 words, giving your views as to the advantages and disadvantages of employment in the departmental service in Washington.

Penmanship.—The mark on penmanship is determined by legibility, rapidity, neatness, and general appearance, and by correctness and uniformity in the formation of words, letters, and punctuation marks, in the exercise of copying from plain copy. No particular style of penmanship is preferred.

Copying from Plain Copy.—Paragraph, spell, capitalise, and punctuate precisely as in the copy. All omissions and mistakes will be considered in marking the subject.

Geography.—This examination is designed to show the candidate's general knowledge of the subject.

The examination in second-grade subjects is simpler than the foregoing, while the examination in third-grade subjects is one that should readily be mastered by any intelligent boy or girl who has passed through the grammar school.

The age limit for candidates for stenographic appointments is not less than twenty years. The time allowed for the examination is five and a half hours, of which one and a half hours are allowed to transcribe the stenographic notes. The commencing salary is from \$600 to \$1,000 a year.

The practical test in stenography consists of two exercises, a letter and a speech, each containing 160 words. The dictations are given to all the competitors together. In order to familiarize the competitors with the examiner's manner of dictation, a preliminary test is given at the rate of 80 words a minute. This preliminary test is not

to be considered a part of the examination, and should not be transcribed. The regular exercises (a letter and a speech are considered as one exercise) will then be dictated at different rates of speed, as follows: 80 words, 100 words, 120 words, and 140 words a minute. A rating of 70 per cent. in speed will be given when the dictation is at the rate of 80 words per minute, 80 per cent. for 100 words, 90 per cent. for 120 words, and 100 per cent. for 140 or more words per minute. The speed competitors will be permitted to enter the regular tests at as many different rates of speed as they may desire, but they will be required at the conclusion of the tests to select the exercise which they wish to transcribe, and to have considered in the rating. The notes may be transcribed either in longhand or with the typewriter. An applicant for this examination who desires to have his name entered also on the departmental clerk register of eligibles, should apply for the clerk-stenographer examination. In this case, he is required to take the first-grade spelling and first-grade copying from plain copy, in addition to the stenographic subjects. For these subjects, forty-five minutes additional time will be allowed. Only one application is required for the combined examination.

It is not possible to estimate the prospects of an eligible for appointment, and an attempt to predict when names will be reached for certification is certain to result in disappointment. The law requires examinations to be held, but the passing of an examination does not insure either certification or appointment. The conditions of appointment in the various branches of the service are such that nothing can help, and nothing can hinder, the certification of a name in the order of its standing on a register. As the highest possible mark is 100, and the lowest that gives eligibility is 70, it follows that the nearer a mark is to 100, the more likely it is that the person may be reached for certification within the period of eligibility, one year. There are usually on the registers more eligibles having ordinary qualifications than are required for appointment. Under the civil service rules, the appointing officers are the final judges of the qualifications of the persons selected for appointment, and with their proper exercise of this lawful discretion, the Commission cannot interfere. No eligible can be certified for appointment to the same department or office more than three times from one examination.

Entrance to the departmental service is usually in the lowest grades, the higher grades being filled generally by promotion. The prospect of promotion varies so much in the different departments that no special information on the subject can be given. The usual entrance grade commands a salary of \$900 a year, yet the applicant may be appointed at \$840, \$720, or even \$600 only.

There are very few particular appropriations for stenographers, typewriters, bookkeepers, draftsmen, and other specialized employments, and persons who pass these examinations are usually appointed with the designation of clerks or copyists. The supply of male eligibles in stenography and typewriting is seldom equal to the demand; and male applicants, proficient as stenographers and typewriters, have much better prospect of appointment than have other applicants.

During the year ending June 30, 1900, no woman was appointed from the clerk register to any of the departments at Washington. In typewriting, only those women who pass at a rating above 88 per cent. have any prospect of appointment.

As the number of persons examined for the Railway Mail Service is far in excess of the number appointed, only those who stand high on the registers have any prospect of certification. Eligibles who are rated below 88 per cent., except from the states and territories of small population, have little prospect of appointment.

The act establishing the U. S. civil service commission, commonly known as the civil service law, was passed in 1883. By its terms the commission is composed of three members, not more than two of whom shall belong to the same political party. The act provides for rules to be promulgated by the President, these rules to have, with the commission and the heads of the departments and offices, all the force of the law itself. The primary and fundamental purpose of both law and rules is to establish in the public service within their scope, a merit system, by which selections for appointments shall be made with reference solely to demonstrated qualifications, and without regard to the political affiliations of the aspirants or their friends. To give effect to this purpose, competitive examinations are required and held. Under the term "classified service" are included those parts of the service which are within the provisions of the civil service laws and rules, and the "unclassified service" embraces all the appointments that may be made without examination and certification by the commission. Positions outside the executive branch of the Government, positions to which appointment is made by the President and confirmed by the Senate, and positions of mere unskilled manual labor, need not be classified. Such excluded, the President has authority to direct, in his discretion, the heads of offices and departments to extend the classified service, and it has been so extended until now it includes fully 78,000 positions. President McKinley, in May, 1899, directed that about 5,000 positions be excepted and removed from the classified service and this was done. The commission is not empowered to classify any positions except those in its own force. In the executive department, still unclassified, are these: consular service,

non-free delivery post-offices, government of the District of Columbia and of the Territories, the congressional library, census bureau and some less important branches of the service. A few positions once classified have, as has been shown, been excepted from examination. There are a few others, to which appointments may be made on non-competitive examinations. The commission has no power of appointment or removal; that power resides in the President and heads of departments, as it did prior to the passage of the Civil Service Law. The commission, on the requisition of an appointing officer, names eligibles as determined by a competitive examination, and from these this officer makes his selections and the appointments follow. As soon as the commission has certified three eligibles for any particular position, the appointing officer has full discretion in choosing from such eligibles, provided always that he is uninfluenced by political considerations. With the certification, the commission's duty ends, except that it has power to investigate and report on any irregularity in appointment or removal. There are three ways of filling a vacancy: by original appointment following an examination and certification by the commission; by transfer or promotion from certain other positions in the classified service, or by reinstatement of some person within a year of his retirement, if retired without official misconduct. In the cases of honorably discharged soldiers and sailors of the Civil War and their widows, and army nurses of the Rebellion, this limitation is waived. The commission, for the convenience of the public and that it may act with due celerity on the greater number of positions in the classified service, holds examinations on schedule dates throughout the U. S. The only advance notices of the dates are those given in the newspapers, and no information of the scope or character of the proposed examination is furnished, except such as is given in the Civil Service Manual which is obtainable by anyone on application.

APPOINTMENTS TO WEST POINT AND ANNAPOLIS

THE civil service law does not apply to admission to the military and the naval academies. Appointments to these institutions are made as formerly, upon the nomination of the representative in Congress in whose district the applicant lives, and each of the two senators from each state is now entitled to a nomination, as is also each territorial delegate. There are, in addition, a number of appointments from the country at large, which are directly made by the President. To West Point, the annual number of such presidential appointments is thirty; to Annapolis the number is ten.

No candidate will be admitted to West Point who is under seventeen, or above twenty-two, years of age, or who is deformed, or afflicted with any disease or infirmity which would render him unfit for military service, or who has at the time of presenting himself, any disorder of an infectious or immoral character. Accepted candidates, if between seventeen and eighteen years of age, should not fall below five feet three inches in height and one hundred pounds in weight; if between eighteen and nineteen years, five feet three and one-half inches in height and one hundred and five pounds in weight; if more than nineteen, five feet four inches in height and one hundred and ten pounds in weight. Candidates must be unmarried. They must be proficient in reading, in writing, including orthography, and in arithmetic, and must have a knowledge of the elements of English grammar, of descriptive geography (particularly of our own country), and of the history of the United States.

Every candidate is subjected to a rigid physical examination, and if there is found to exist in him any of the following causes of disqualification, to such a degree as would immediately, or at no very distant period, impair his efficiency, he is rejected:—

Feeble constitution; unsound health from whatever cause; indications of former disease; glandular swellings, or other symptoms of scrofula.

Chronic cutaneous affections, especially of the scalp.

Severe injuries of the bones of the head; convulsions.

Impaired vision, from whatever cause; inflammatory affections of the eyelids; immobility or irregularity of iris; fistula lachrymalis, etc.

Deafness; copious discharge from the ears.

Loss of many teeth, or the teeth generally unsound.

Impediment of speech.

Want of due capacity of the chest, and any other indication of a liability to a pulmonic disease.

Impaired or inadequate efficiency of one or both of the superior extremities owing to fractures, especially of the clavicle; contraction or incurvature of the spine.

Hernia.

A varicose state of the veins of the scrotum or spermatic cord (when large), hydrocele, hemorrhoids, fistulas.

Impaired or inadequate efficiency of one or both of the inferior extremities owing to varicose veins, fractures, malformation (flat feet, etc.), lameness, contraction, unequal length, bunions, overlying or supernumerary toes, etc.

Ulcers, or unsound cicatrices of ulcers, likely to break out afresh.

In reading, candidates must be able to read understandingly, with proper accent and emphasis.

In writing and orthography, they must be able, from dictation, to write sentences from standard pieces of English literature, both prose and poetry, sufficient in number to test their qualifications both in handwriting and orthography. They must also be able to write and to spell correctly, from dictation, a certain number of standard test words.

In arithmetic, they must be able:—

To explain, accurately and clearly, its objects, and the manner of writing and reading numbers—entire, fractional, compound, or denominate.

To perform with facility and accuracy the various operations of addition, subtraction, multiplication, and division of whole numbers, abstract and compound or denominate; giving the rule for each operation, with its reasons, and also for the different methods of proving the accuracy of the work.

To explain the meaning of reduction; its different kinds; its application to denominate numbers in reducing them from a higher to a lower denomination, and the reverse, and the equivalent decimals; to give the rule for each case, with its reasons, and to apply readily these rules to practical examples of each kind.

To explain the nature of prime numbers, and factors of a number; of a common divisor of two or more numbers, particularly of their greatest common divisor, with its use, and to give the rule, with its reasons, for obtaining it; also the meaning of a common multiple of several numbers, particularly of their least common multiple, and its use, and to give the rule, with its reason, for obtaining it, and to apply each of these rules to examples.

To explain the nature of fractions, common or vulgar, and decimal; to define the various kinds of fractions, with the distinguishing properties of each; to give all the rules for their reduction, particularly from mixed to improper fractions and the reverse; from compound or complex to simple fractions; to their lowest terms, to a common denominator; from common to decimal, and the reversal, for their addition, subtraction, multiplication, and division, with the reason for each change of rule, and to apply each rule to examples.

To define the terms ratio and proportion; to give the properties of proportion, and the rules, and their reasons, for stating and solving questions in both simple and compound proportion, or single and double rule of three, and to apply these rules to examples.

The candidates must not only know the principles and rules referred to above, but they are required to possess a thorough understanding of all the fundamental operations of arithmetic that will enable them to combine the various principles in the solution of any complex problem which can be solved by the methods of arithmetic. In other words, they must possess such a complete knowledge of arithmetic as will enable them to take up at once the higher branches of mathematics, without further study of arithmetic.

The examination may be either written or oral, or partly written and partly oral; the definitions and rules must be given fully and accurately, and the work of all examples, whether upon the blackboard, slate, or paper, must be written plainly and in full, and in such a manner as to show clearly the mode of solution.

In English grammar, candidates must be able:—

To define the parts of speech, and to give their classes and properties; to give inflections, including declension, conjugation, and comparison; to give the corresponding masculine and feminine gender nouns; to give and apply the ordinary rules of syntax.

To parse fully and correctly any ordinary sentence, omitting rules, declensions, comparisons, and principal parts, but giving the subject of each verb, the governing word of each objective case, the word for which each pronoun stands, or to which it refers, the words between which each preposition shows the relation, precisely what each conjunction connects, what each adjective and adverb qualifies or limits.

To correct, in sentences or extracts, any ordinary grammatical errors, such as are mentioned and explained in ordinary grammars.

It is not required that any particular grammar or text-book shall be followed; but rules, definitions, parsing, and corrections must be in accordance with good usage and common sense. The examination may be written or oral, or both.

In geography, particularly of our own country, candidates are required to pass a satisfactory examination, written or oral, or both. Questions are likely to be asked involving knowledge of:—

Definitions of the geographical circles; of latitude and longitude; of zones; and of all the natural divisions of the earth's surface, as islands, seas, capes, etc.

The continental areas and the grand divisions of the water of the earth's surface.

The grand divisions of the land; the large bodies of water which partly or wholly surround them; their principal mountains, location, direction and extent; the capes, from what parts they project and into what waters; their principal peninsulas, location, and by what waters they are embraced; the parts connected by an isthmus; their principal islands, with location, and surrounding waters; the seas, gulfs, and bays, the coasts they indent, and the waters to which they are subordinate; the straits, the lands they separate, and the waters they connect; their principal rivers, their sources, directions of flow, and the waters into which they empty; their principal lakes, location and extent.

The political divisions of the grand divisions. Their names, locations, boundaries, and capitals; general questions of the same character as already indicated, made applicable to each of the countries of each of the grand divisions.

The United States; its general features, configuration, location, and boundaries, both with respect to neighboring countries and to latitude and longitude; its adjacent oceans, seas, bays, gulfs, sounds, straits, and islands; its mountain ranges, their location and extent; the sources, directions, and terminations of the important rivers and their principal tributaries; the lakes, and in short, every geographical feature of the country as indicated above. The location and termination of important railway lines, and other means of communication from one part of the country to another, should not be omitted. In short, the knowledge should be so complete that a clear mental picture of the whole, or of any part of the United States, is impressed upon the mind of the candidate.

History.—The candidate should make himself familiar with so much of the history of the United States as is contained in the ordinary school histories. The examination may be written or oral, or partly written and partly oral, and will usually consist of a series of questions similar to the following:—

Name the earliest European settlements within the present limits of the United States—when, where, and by whom made? When did the settlements founded by other nations than the English, come under the dominion of Great Britain and of the United States?

What was the difference between the Royal, the Chartered, and the Proprietary Colonies? How many colonies were there originally in Massachusetts and Connecticut? When were they united? How many in Pennsylvania? When were they separated?

In what wars were the colonies engaged before the Revolution? What were the principal events and results of those of King William, Queen Anne, King George, and the French, and Indian?

What were the remote and immediate causes of the American Revolution? Explain the Navigation Act, the Stamp Act, Writs of Assistance. When did the War of the Revolution properly begin? When, where, and how did it end? Give the particulars of Arnold's treason. Who were the most prominent generals in this war? Name the most important battles and their results.

The Constitution of the United States—why and when was it formed? When was it adopted?

The pay of a cadet is \$540 per year, to commence with his admission to the academy. No cadet is permitted to receive money, or any other supplies, from his parents, or from any person whomsoever, without the sanction of the superintendent.

A most rigid observance of this regulation is urged upon all parents and guardians, as its violation would make distinctions among the cadets which it is an especial desire to avoid, and the pay of a cadet is sufficient, with proper economy, for his support.

NAVAL ACADEMY

THE course of naval cadets is six years, four years at the academy and two years at sea, at the expiration of which time the cadet returns to the academy for final graduation. All candidates must, at the time of examination for admission, be between the ages of fifteen and twenty years, physically sound, well formed, and of robust constitution.

Attention will also be paid to the stature of the candidate, and no one manifestly under size for his age will be received at the academy. In case of doubt about the physical condition of the candidate, any marked deviation from the usual standard of height or weight will add materially to the considerations for rejection. Five feet is the minimum height for the candidate. The physical and academic examinations do not differ materially from those at West Point.

Candidates will be examined mentally, by the academic board, in reading, writing, spelling, arithmetic, geography, English grammar, United States history, world's history, algebra, through quadratic equations, and plane geometry (five books of Chauvenet's Geometry, or an equivalent). Deficiency in any of these subjects may be sufficient to insure the candidate's rejection.

Candidates who pass the physical and mental examinations will receive appointments as naval cadets and become students of the academy. Each cadet will be required to sign articles binding himself to serve in the United States Navy for eight years (including his time of probation at the naval academy), unless sooner discharged.

The pay of a naval cadet is \$500 a year, beginning at the date of his admission.

The Secretaries of War and of the Navy will, upon application, furnish any additional information not embraced in the foregoing pages.

THE DRUMMER WHO SUCCEEDS

By MILES M. O'BRIEN

Representative of H. B. Claflin & Co., New York



ACCORDING to the popular idea, the successful drummer is a man possessed of colossal cheek; a natural aptitude for lying that has been greatly improved by assiduous cultivation; an inexhaustible fund of funny and more or less questionable stories; a great capacity for stowing away liquor; and who lives, moves, and has his being solely to sell goods, without even a preference for honesty in his methods. Such is the successful drummer of the stage and of fiction. But he is not to be found elsewhere—except, perhaps, in the very last rank of those who fail. I have never known a successful drummer who was dishonest, who was a drunkard, who was offensively vulgar, or whose mental horizon embraced only the sale of goods. The successful drummer is the product of great natural aptitude for his calling,—plus a vast amount of hard, faithful, conscientious work.

Honesty I should place among his first and most essential qualifications. A little reflection will make it apparent that it must be so. The drummer succeeds by gaining the confidence of those to whom he sells goods. How can he do that if he deceives his customers? The man to whom a drummer has misrepresented goods will never buy of him a second time. Lying, for the drummer, spells failure quicker than anything else. And not a few have found it out. Unquestionably, lying—or misrepresentation, which is the same thing—will often help one to sell goods—the first time. And the young man, on his first trip, anxious to make a record for himself, sometimes succumbs to the temptation. Perhaps he does make a record, and when he returns is complimented by his employer on the big sales he has made. But when the goods are delivered the mails come in loaded with complaints. The customers who have been deceived “kick.” The smart young drummer has made enemies of them instead of friends. He may see the error of his ways and reform, but he cannot sell goods to these men again. For this reason the successful drummer, whose reputation for veracity is among the valuable assets of his stock in trade, will never take service with a trickster. And, for the same reason, the young man, anxious to make headway as a salesman, will, if he be wise, consider of more importance the character of the house he starts with than the salary at which he begins.

The drummer who succeeds must be a keen judge of human nature; he must know how to address a prospective customer; how to engage his attention and retain it; he must learn to read those trivial and scarcely perceptible signs by which men oftentimes reveal their characters, moods, and mental status. There is a popular notion that this sort of knowledge is all intuitive; that it is a gift which cannot be cultivated. This is a mistake. The foundation — natural aptitude — one must have, of course. But observation and experience, if one keeps his eyes open and mind alert, will greatly increase one's capacity for what is called "reading people." To make that knowledge of service, adaptability is needed. The drummer who makes big sales must be capable of being all things to all men. He should know when to be serious and when to be gay; when to discuss philosophy and when to tell a funny story; when to talk and when to listen. And the latter is very important. By showing himself a good listener, the drummer often sells more goods than he would by exerting his conversational powers to the utmost. Some men would rather hear themselves talk than to hear anybody else. And sometimes they happen to be large buyers.

Confidence, not cheek, is what the drummer needs. Cheek repels; confidence attracts. The world believes in men who believe in themselves, and the world mistrusts men who mistrust themselves. The timid man, who seems to be constantly apologizing for the fact of his existence, can never sell goods.

Courage is one of the requisites of the drummer who makes big sales — the courage that impels one to do his best with undiminished energy and serene cheerfulness, despite rebuffs, disappointments, and failures. If he feels discouraged, he must not show it. The despondent man is never welcome. The drummer who makes a good impression, even though he fail to make a sale, paves the way for future dealings that will bring him his reward. The personal equation enters very largely into his business. Other things being equal, the man who is best liked sells the most goods. Therefore it behooves the drummer to cultivate those qualities that attract men. The best foundation for the arts that please is a spirit of genial optimism, nourished and sustained by sound health and good digestion. The bright, sunny, cheerful man carries with him his own best letter of introduction. He radiates health, mental and physical. As one of the poems of my childhood says: —

"As welcome as sunshine in every place
Is the smiling approach of a good-natured face."

The successful drummer should be "a good fellow" in the best sense — warm-hearted, buoyant, sympathetic, ever willing to do a friend a good turn. It is because of a misconception as to what constitutes good

fellowship that the drummer is so often maligned. With many it stands merely for conviviality carried to excess. Hence the notion that the successful drummer is generally a hard drinker, and that to get drunk with a customer is the best way to establish relations that will lead to large sales. There never was a more egregious error. When it comes to business, the man who gets drunk himself mistrusts the man who shares the debauch with him. When sober himself, he will give his orders to the sober man, because he will rightly have more confidence in the sober man's judgment.

It is certainly worth much to the drummer to be able to tell a good story well. A laugh is a good tonic. It warms the cockles of one's heart much more effectively than a cocktail. Naturally, in his goings to and fro over the length and breadth of the land, the drummer has unusual opportunities to collect a good fund of humorous stories. But the vulgar, "off color" stories, if he indulge in them, will do him much more harm than good. They nauseate the decent man, and the decent man is the man who buys the most goods. Besides, their moral effect on the man who tells them is deteriorating.

But from whatever point he is viewed, it is to be remembered that the drummer above everything else is engaged in downright, hard, serious work. Whatever peculiar qualifications the successful pursuit of his calling may require, he can dispense with none of those by which success is ordinarily won in all business fields. He must possess energy and industry; he must be prepared to "scorn delights and live laborious days" whenever need be. He must serve his employer loyally and faithfully. He must understand his business thoroughly.

The story of success is always more or less the same story. The royal road to it exists no more for the drummer than for anybody else. The youth who enters a big store, ambitious to shine as a salesman, must be content to follow the well-beaten track. To begin with, he must have genuine liking for the work. Without that, though he may force himself to make a living at it, he cannot make a conspicuous success of it.

He must be prepared to work hard — to put his best into all that he does. He must not think, because he starts with six dollars a week, for instance, that he is to do only six dollars' worth of work in a week. He should double and treble that much if he can, and count himself lucky that he gets such a chance to show his employer what he is capable of. The lad who starts out in that spirit is sure to win promotion. He must endeavor to learn all he can about the business as he passes from department to department, and to retain what he learns. That is laying by capital for future use. He must study human nature; he must learn how to adapt himself to different sorts and conditions of men. He

should set himself early to saving money, for the summer of life is beset with temptations to spend money recklessly.

If he does all this; if he possesses himself of all the qualifications I have indicated, and in addition turns out to be that lucky individual endowed with that indefinable something which we call personal magnetism, he may some day, as a drummer, earn a bigger salary than many a bank president gets.

BUILDING AND LOAN SOCIETIES

FROM a small beginning, about eighty years ago, the building and loan associations have grown to be financial and industrial institutions of great importance. Hundreds of millions are annually invested through them, in the United States; and so careful and economical is their administration, owing to the sound economic basis on which the societies are conducted, that the expenses are but a small fraction of the total disbursement. In Greater New York alone, during the past year, nearly thirty millions were invested in homes and house property, at a cost to the organizations of only \$840,000. The keynote of success in the building and loan business is economy of management, for upon it depends the life and fate of the society.

The origin of the building and loan society is this: A number of men anxious to own their own houses, but lacking the capital to do so, met and formed a club. President, secretary, treasurer and other necessary officers were elected, and the members were assessed a fixed sum per week. These sums were paid into the treasury, and when the amount was large enough to make one loan, it was decided by lot to whom the privilege of the first loan should go. The person securing the first loan continued, of course, to pay his assessments and, in addition, paid interest on the amount of money borrowed. The interest and premiums on the loans constituted the profits of the society.

The basic principle has remained the same in institutions of larger growth. Under the old system, the society dissolved immediately after all the members had secured their loans, the mortgages were canceled, and the profits arising from interest and premiums were divided among the members. The modern building society continues business indefinitely. It has usually a number of shareholders who are willing to allow their money to lie as an investment and to draw dividends from the profits; consequently the applicant for a building loan secures it immediately,

instead of having to wait his turn for two or three years, and must pay only a small premium and low interest for the loan.

Many of the institutions receive as members only persons desirous of building homes for themselves. Other societies are founded on purely commercial principles, and receive as members persons who desire to build as an investment or sound speculation. These latter organizations approach more nearly to the banks in their methods of business.

A sound commercial training, such as is demanded of a young man going into the business of banking or stock brokerage, is essential. A knowledge of at least the rudiments of law is desirable, especially as far as it relates to loans, real estate, and building; for few societies are rich enough, or, more correctly, have business enough, to retain a lawyer permanently, and legal questions are continually arising out of agreements, mortgages, bonds, and other details of the business. The manager or responsible executive of a society must know how far he may or may not go without the expensive services of a lawyer, for, as I have said before, economy is the great justification and reason for the existence of the building and loan society. It is further imperative for him who would become a power in the business of building and loans to be acquainted in a practical way with the management of real estate, its value, and the possibilities of its development.

When application for membership in the society is made, the first step taken by the officers is to investigate the eligibility of the applicant. The would-be shareholder must already be possessed of some means, such as the ground on which to build or the money with which to buy a lot. The officers, besides investigating the responsibility of the applicant, must decide whether the lot justifies the loan asked upon it, and only knowledge of the locality can determine that point, the environment making or marring its value.

And, again, the man who would become a valued officer in a building society must not only possess intelligence himself, but must be capable of imparting to others a clear idea of the workings of his society. A great number of the people applying for membership have but a hazy notion of the principles on which the society is founded, and very lucid reasoning is sometimes required to get people to understand the workings of such an organization.

Finally, the successful building and loan officer must be gifted with a rare insight into human nature, in order to judge between the man with ability and perseverance, who will carry his project to a successful and profitable termination, and the man without these qualifications, who will, in all probability, leave an unfinished house on the hands of the society. In the granting of a loan, the ability of the applicant is the first consideration. Even though possessed of the necessary initial sum, it

would be exceedingly bad policy to expect from him payments in excess of the amount he could reasonably pay from his salary or income. Thus the executive officers of the society have to guard, not only against the ordinary mishaps of business, but they must protect the members from their own extravagances and prevent them from undertaking more than they can carry to successful issue.

The officers of these institutions carry trusts as important and responsible as those of the officers of a bank, or the trusted employees of a large commercial house, and, consequently, honesty, integrity, energy, and interest in the welfare of the institution, as well as the ability to do the work required, are important elements in their mental training. Indeed, in no place is integrity more necessary than in the building and loan society, for there it is nearly always the savings of little means that are to be conserved.

The remuneration in building societies ranks with that in banks. Clerks earn, according to their ability and their work, from twelve dollars to thirty-five dollars a week. The salaries of the more responsible officers are in proportion to the standing and importance of the society. Five thousand dollars to ten thousand dollars a year is not an uncommon salary for the manager or president of a prosperous institution.

There are many opportunities for the young man who is willing to make himself thoroughly conversant with the business of the building and loan association. This institution has not yet reached its full development, and the positions it will offer in the future will be among the prizes to be awarded by the business world.

THE EVOLUTION OF THE GENERAL STORE

IF THE merchant, whether in a great city or in a town, would build a permanent and substantial business, he must, in the first place, tell his customers the truth, the whole truth, and nothing but the truth. Salesmen must state the quality of the stock exactly as it is—all wool and a yard wide, or part cotton and thirty inches wide, as the case may be. This avoidance of misrepresentation in any form, as a business principle of leading merchants, is one of the indications of the rise in the mercantile business to a higher plane than that upon which it rested twenty-five years ago. It is of great benefit, not only to the public and the merchant, but also to the employees of the latter. It puts their self-respect on a firmer foundation and enables them to command the respect of customers. Out of this practice of fair statement in respect to goods, has come naturally the one-price system. The merchant well knows at

what figure he may sell an article or piece of goods and obtain an adequate profit. He does not strive to make as large a profit as possible, and thus to get the better of his customers. In all mercantile establishments conducted in accordance with modern and reputable methods, prices are fixed, and cannot be changed by any bickering and bargaining between salesman and patron. It is essential to a large business that goods be sold at a small profit and chiefly for cash.

Another matter which the modern merchant must look well to is advertising, the force which vitalizes his business. He must advertise often — daily, if possible — in the newspapers, and must see to it that his advertisements are not stereotyped or perfunctory. The language of the advertisements should be simple, forcible, and conservative. No ordinary man can write them so as to bring out their full possibilities. The merchant who is doing, or hopes to do, a business of any magnitude, should have a man of trained ability at the head of his advertising department, and should be courageous in his advertising expenditure. Advertising has a cumulative effect; that which is most successful is conducted on a large scale. Most advertising fails because it has not been carried quite far enough. An advertiser often becomes discouraged, when a comparatively small further expenditure would give all of his advertising force and swing.

But advertising alone cannot, of course, build up a mercantile business. The advertisement may draw a shopper to the store, but unless she is pleased she is not apt to come soon again. A potent influence in pleasing a customer, aside from the main consideration, "good values," is to be found in the attractiveness of the store itself. A shopper naturally prefers to buy amid surroundings which gratify the eye, divert the mind, and rest, rather than wear out, the body. A great retail store in these days is a sort of universal exposition. Here the choicest of the world's manufactured products are exhibited under the most favorable conditions that modern skill can devise. The people come in thousands and tens of thousands to visit this exposition. Many of these buy, of course, but a large number come simply to see, to be instructed and entertained. The good merchant makes all of these visitors welcome, and furnishes them with facilities for making their visits both agreeable and profitable. In stores in small cities and towns the means of attracting visitors cannot, of course, be nearly as extensive as in great department stores, but the value of the practice of making establishments as attractive as possible remains the same in all localities.

This policy has been one of the influences which have developed salesmen and saleswomen of a higher type than the average dry-goods clerk of former times. Many of those of to-day exercise the duties of exhibitors, demonstrators, and teachers, as well as of sellers of goods.

They are expected by the merchants of the best houses to be always attentive to visitors, but never to importune them to buy; they are to remember that the visitor, whether a buyer or not, is a guest of the establishment and is to be treated as such. The salespeople are the representatives of the proprietor in meeting and greeting visitors, and must do their utmost in an unobtrusive way to create a relationship of good will between the merchant and the public.

The best salesmen and saleswomen are those of sympathetic and sociable dispositions. This is because their manifestations of friendliness has a spontaneity which is far more winning than any forced expressions of good will. Many persons have a natural reserve which gives them a distaste for meeting strangers. This feeling can be overcome, and must be, if one would become a successful salesman. True cordiality of manner must be reinforced by intelligence, of course, and by a ready command of information, particularly in regard to matters near at hand. The practice of a pleasant greeting, with straightforward, courteous answers to all inquiries, even if some of the latter do seem foolish, will go far toward making the caller's visit to the store a pleasure, and will gradually develop in the public mind a general feeling toward the establishment which will be of invaluable benefit to it.

The necessary qualifications of a good salesman may be set down as follows: Spontaneous politeness, tact, patience, confidence, perseverance, decision, and finally, above all, honest loyalty to both customer and employer. The combination of all these qualities is found in very few persons, but it can be cultivated by men and women of average intelligence, who think it worth while to put themselves through a course of severe training. If you are a salesman or saleswoman, and want to be a good one, not only for the sake of doing your work well but also because this is a condition precedent to promotion, you must persistently cultivate the habits of mind which are manifest in the qualities I have mentioned. In "rush seasons," when hard work and long hours have brought a weariness of flesh and spirit, a fixed practice of exercising politeness, tact, and patience will carry a salesman safely and without friction through a difficult day, while the man at his side, with greater natural ability, perhaps, but with less effectual training, will irritate himself and all those with whom he deals, and will commit fault upon fault.

To be loyal to himself and to his employer, the salesman must be loyal to customers. The merchant lives, moves, and has his being in the confidence of the public. Without that confidence, prosperity is beyond his reach. An adroit salesman, who disposes of questionable goods at a high price, may flatter himself that he has done a clever thing, but in the long run such seeming gains turn to loss—the loss of the established confidence that is the breath of life in mercantile business.

To attain the highest success in selling goods, a man or woman must have a quick insight into the buyer's needs; this insight comes with the use of tact. A stranger who is made to believe that you really desire to aid him in the way he wants to be aided, is your friend. A quick intuition, cultivated by patient use, will give you a glimpse of the customer's purposes, desires, tastes, and even the limitations of his or her means. There will be no resentment of this indirect inquiry, but rather gratitude for the friendly assistance. Very often buyers express thanks to the salesman who with tact and grace has discovered what they want when they have hardly known themselves. Such experiences make for an establishment lifelong patrons; such salespeople are the mainstay of the retail mercantile establishment.

The man or woman that sells goods, who would join the ranks of these efficient and appreciated employees, would make a good start by determining to do only one thing at a time, but to do it thoroughly and well. Give, to as great an extent as possible, exclusive attention to the person who stops at your counter with an inquiry. One customer comes in haste, desiring nothing so much as to be waited on with sharp dispatch; another has a whole morning to idle away in the shopping tour; one knows exactly what he is looking for and wants to be told on the instant whether it can be had at the place of inquiry or in the next department; another has only a general idea of something that can be made to fill a not very definite requirement, and needs guidance in the selection of the right article; one comes with a full purse, and is concerned about style, quality, and suitability; another, cramped by small means, is forced to compare goods and prices. The salesman encounters many different conditions in the course of a business day. The chief thing for him to remember is to give his devoted attention to each person, whether a large buyer or a small one, or merely an inquirer. Thus he is able to serve each new-comer according to his or her requirements. It is said that the best way to win the favor of a lady is to treat her as if she were the only woman in the world. Whatever truth there may be in this observation, may be applied by the salesman.

Much has been said of the good employee, but nothing as yet of the faults of the average one. These faults are conspicuous enough. The chief ones may be stated briefly to be a lack of thoroughness, a lack of interest, and a lack of willingness to do any work outside of the fixed routine. The majority of employees fear hard work; they take hold of business with but half a heart and think chiefly of the closing time and what they will do after that hour. They resent requests to undertake work which is not exactly in their line of duty, yet they are equally resentful when others, more faithful, are promoted over their heads. They think they ought to have their salaries raised, but do noth-

ing to increase their value to the establishment. They do not possess that earnest sincerity which prompts a man to work with his whole heart. They lack the soldierly qualities without which a man in the ranks can rarely become a captain.

But the merchant cannot expect faithful and efficient service from his employees if he regards them merely as a part of the machinery of his business. No man or woman will put forth his or her best efforts in the interest of others, unless there is some assurance of fair treatment, consideration, and appreciation in return. The representative merchant does not consider policy alone in his attitude toward those in his employ, yet it is the best policy to see that the latter are contented and interested in the store.

While the final purpose of the retail merchant is to sell goods, he must, of course, buy them first. There can be no successful selling without skilful and judicious buying. Formerly, the proprietor attended personally to this important matter, but the expansion of the retail business, and the federation of many kinds of merchandise under one roof, have created a new calling, that of the buyer. The latter is an expert who gives his attention exclusively in large establishments to one particular kind of goods. He is usually the chief of the department devoted to his particular line of merchandise, and bears the whole responsibility of its proper management. He receives credit for its profits and is called to account for its losses. When it is remembered that a single department may do a business of a million or even two million dollars a year, it will be seen that a man of ability is required to manage it, and that his pay must be large. In large city retail stores are numerous other positions involving much responsibility and carrying excellent salaries. For example, the general superintendent of the delivery department must be a man of exceptional executive ability. This department is representative of the growth of the present-day methods in the retail mercantile business. In the early development of the business of an eminent retail merchant, his clerks, at the close of the day, each took a basket laden with bundles, which they delivered during the evening. At the present time, the delivery department is highly organized and expensively equipped. It gives work to a large number of persons, and keeps in constant use hundreds of horses and delivery wagons; it requires the close attention of several capable managers in addition to that of the general superintendent.

These and numerous other positions of responsibility are all within the reach of the young man who becomes an employee of a large retail store. He has plenty of opportunities to attain a place which will make him a useful and respected citizen and will give him an excellent income. An efficient man will probably earn more by working for a

salary than in conducting a store of his own, unless he is in the exceptional position of having considerable capital, and circumstances in his favor, which are now necessary for the development of a large business.

The federated store has been criticised on the ground that small storekeepers cannot compete with it, and thus many merchants have been driven out of business. This is true only to a limited extent. A few have suffered, but their number is insignificant when compared to those who have been benefited. The greatest good to the greatest number is an underlying principle of American institutions. Many of the men who have been unable to compete with the lower prices of the great retail stores have been given employment in these establishments, and are enjoying larger incomes than before. But the chief merit of the department store lies in the fact that it has increased the purchasing power of the money of the people, and has thus added materially to the comfort of their lives.

For several reasons, the merchant conducting a great business is able to sell on a much smaller margin of profit than others. He is very close to production and manufacture, for he handles the entire output of many factories, and does more business in a week than half a dozen wholesale houses formerly did in a month. He has done away with the intermediaries who in the past carried on the commission, the importing, and the jobbing business.

The new method is the best, not only for the consumer but for all concerned. It has great advantages for those who make goods and for those who sell them. In the case of a maker of a staple cotton fabric, for example, the merchant deals with this manufacturer directly — takes his goods from the looms and distributes them among the buyers, with no intervention of middlemen. The maker is kept by the merchant in close touch with the consumer, and is fully advised as to the changes, improvements, and new fashions which are likely to affect his line of goods. If, in spite of all care, an accumulation of stock is threatened, he and the merchant can arrange for such a reduction of prices, as will extend consumption until the surplus has been distributed. He thus has a constant market and can arrange for a constant output of goods to supply it. He contracts for material, fuel, labor, and machinery on an all-the-year-round basis. His returns are in cash, and he pays cash, saving not only the discount, but the waste and the anxiety attending credit transactions. He has no bad debts, or need have none, and he saves the two-and-a-half-per-cent. guarantee charges on his goods to cover risks on this account. Thus the manufacturer can afford to sell at a lower per cent. of profit than ever before. This saving is realized by the consumer, who is able to buy most of the family necessities, and

even luxuries, at about one-half the price formerly paid. From this it follows that a greater demand is created by the greater purchasing power of money, factory operations are more active, and demand for labor is increased.

Thus the great stores, keeping pace with the marvelous commercial growth due to the application of steam and electricity to industrial uses, have vastly broadened the mercantile business, bringing it to a state of high development mechanically, and raising it to a higher plane ethically. To recapitulate: they have brought greater advantages to consumer, producer, and the skilled workman; they have opened a new field for employment for women; they have added dignity to the occupation of the salesman and have created new positions and new work; they have, in brief, come to play an important part in the economic life of the times. The primary aim of the merchant of to-day, as of the past, is to make money, but unlike most of his predecessors, he realizes that his business is a factor in existing social orders, and that he owes a well-defined duty to the public. That he render good service must now be his first consideration. This is the basic condition of mercantile growth.

There must, of course, be behind this growth a directing spirit, and good men, employees who are reliable workers, who think and work for employers as though their efforts counted so many dollars for themselves. But whether employer or employee, the matter of first importance is to give the whole force of one's nature to the thing to be done. Attention to detail, even the smallest, is the beginning of good work all along the line, from the head of the establishment to the youngest errand boy. Next to this is the capacity to generalize, to group the details, and to understand the relations of the several parts to the whole system. This ability, coupled with absolute honesty, will now, as always, command success in the mercantile business.

SELLING GOODS AT RETAIL

FEW men can speak so authoritatively on the subject of selling goods at retail as Nathan Straus, a member of the great firm of R. H. Macy and Company. In conversation with the writer, Mr. Straus made a number of remarks which are of interest to all merchants. A part of what he said is as follows:—

“In the business of storekeeping, we city merchants have gone back to the methods of the rural districts. Except in size, and the system growing

out of the many intricacies of buying and selling on an extensive scale, there is little difference between the great department store and the 'general store' in the village of Wayback. We aim to keep everything that dwellers in the city are likely to want. Our brother merchants in the country also endeavor to have in stock everything that the people in their locality need. In a city store and in a country store the policy and methods that bring success are practically the same.

"If a young man, about to open a general store in a village or town, should ask my advice, I should tell him first, to conduct his business on a cash basis. The credit system is a rock upon which the majority of storekeepers who fail go to pieces. They lose considerable money in bad debts, and goods are often returned, which fact, of course, is far from beneficial to stock. Not receiving his money promptly, a merchant who does a credit business is often unable to pay his bills promptly. Thus, he cannot take advantage of the usual discounts, and he is forced to pay more than his cash-paying competitor. This is not to his best advantage, nor to that of his customer.

"The merchant who sells on credit invariably charges more for his goods than the one who sells for cash. It is perfectly natural and proper that he should do so. But it is the man who gives most for the money who builds up the largest business. Therefore, a young merchant opening a store should always make it a cardinal principle to sell for cash only. Unless he does so he is not making the right start. I have heard it said that it is impossible for a man to build up a cash dry goods business in a community where buying on credit has been the custom. I am very confident that this is not true. I am sure that an energetic young man will be able to convince his customers that, since he is able to buy at much better advantage by doing a cash business, he is also able to sell to better advantage and, that, therefore, their interests are best promoted by cash dealing.

"It is superfluous, of course, to tell an intelligent young merchant that to gain any permanent footing in the dry-goods business he must sell his goods for just what they are. A practice of misrepresentation, with glib-tongued salesmen to laud poor goods and convince purchasers against their better judgment, may give cheap city stores, depending upon transitory trade, an air of fictitious prosperity for a while, but they can never compete, for any great length of time, with honest dealers. Sooner or later, the bottom will drop out of their pretensions.

"Another matter, which seems almost too obvious to mention, is the necessity of unfailing patience and courtesy in the treatment of customers. I have noticed salesmen who act as if they are doing shoppers a favor when they wait upon them. This manner is, of course, fatal to success in a merchant or salesman. In our establishment we weed out, as quickly as possible, men and women who show it.

"A merchant, nowadays, must be content with small profits. He must sell first-class goods at low prices, deciding, as soon as possible after his start, what per cent. of profits will enable him to maintain and develop

his business. In marking goods, he should adhere persistently to this percentage. Young women, mere clerks, fix the prices in our store. It is simply a matter of arithmetic. In each department we have a fixed rate of profit on all sales. If a lot of goods comes in invoiced at \$12.00 a dozen, the young woman, knowing, of course, the rate profit in her department, will mark without hesitancy each article, the prices being \$1.24, or \$1.16, or some other figure, according to the fixed percentage.

"This is an explanation of the uneven figures which so frequently occur in our price marks. Many persons, including some other firms, seem to think that we sell an article for ninety-nine cents rather than for one dollar, in the belief that the former figure will sound, to the unmathematical mind of the average woman, considerably lower than the latter, and thus she will purchase at ninety-nine cents where she would feel that she could not afford a dollar. We have too much respect for the intelligence of our customers to entertain any such idea.

"I have been speaking, thus far, of the prices which are affixed when the articles come from the receiving department. We have, of course, our reductions. Every day a member of the firm, or the superintendent, walks through the store taking notes of the stock, giving special attention to its selling qualities. The shoppers are, after all, the best judges of goods. If they show an unwillingness to purchase goods at a certain price, we mark the goods down, and have what is called a 'bargain sale.' This not only keeps stock moving, but attracts attention to the store and stimulates interest in the great shopping sisterhood. A woman who goes to a store to buy a bargain is very apt to make other purchases.

"The best method of reaching the public with announcements of special sales is by newspaper advertising. To succeed, every dry-goods store which competes with others must advertise. There are, of course, many ways of advertising, but, in a city, at least, the most effective and convenient, though the most expensive method, is through the medium of the daily newspapers. The advertisement, must, first of all, state the facts concisely, but they should be more than mere catalogues of goods. They should be worded so attractively as to catch and hold the attention, even of a reader who is not particularly interested in the articles mentioned. A great many thousands of dollars a year are spent by our largest stores in advertising. The head of this department is always a very alert and able young man who commands an excellent salary. His work has developed within a few years into an art. A merchant, either in city or country, cannot be too careful about his 'ads.' If he gives them snap and originality, he will be surprised at the amount of increase in the returns. It goes without saying that there must be no deception of any kind in an advertisement. That rather ancient adage, 'Honesty is the best policy,' must have been first penned by an experienced dry-goods merchant.

"It has been said that the great department stores are constantly growing larger and are steadily extending their trade, greatly to the detriment of the small merchants. It is true that the large stores are reaching out for the patronage of the residents of the suburban towns. But a house

cannot hope for a large trade from localities more than a few hours distant by train from the city. Most people are loyal to the merchants of their own neighborhood. It is undoubtedly true, however, that some of the latter are crowded out of business. We try to make places for those who have been unable to compete with large city stores. Many of them are in the employ of the department houses, and in numerous instances are receiving larger incomes than those they derived from independent business, in the days of their greatest prosperity.

"In my opinion, the great dry-goods establishments have about reached their limit in size, and in their effect upon the business of the smaller shops. The vast majority of the latter, scattered throughout the country in great profusion, are so far away as to be beyond the influence of the city stores, and have suffered very little from them. The average country store is conducted in a very old-fashioned and unprogressive manner. A young man who has brains and industry and originality enough to apply new methods to keeping a store in a town or village, need encounter little difficulty in establishing himself on a firm basis of prosperity."

JOHN WANAMAKER'S VIEWS ON BUSINESS

(INTERVIEW)

WHEN asked whether the small tradesmen have any "show" to-day against the great department stores, Mr. Wanamaker said:—

"All of the great stores were small at one time. Small stores will keep on developing into big ones. You wouldn't expect a man to put an iron band about his business in order to prevent expansion, would you? There are, according to statistics, a greater number of prosperous small stores in the city than ever before. What better proof do you want?"

"The department store is a natural product, evolved from conditions that exist as a result of fixed trade laws. Executive capacity, combined with command of capital, finds opportunity in these conditions, which are harmonious with the irresistible determination of the producer to meet the consumer directly, and of the merchandise to find distribution along the lines of least resistance. Reduced prices stimulate consumption, and increase employment; and it is sound opinion that the increased employment created by the department stores goes to women, without curtailing that of men. In general, it may be stated that large retail stores have shortened the hours of labor; and by systematic discipline have made it lighter. The small store is harder upon the salesman or clerk. The effects upon the character and capacity of the employees are good in a well-ordered, modern retail store and it is a means of education in spelling, writing, English language, system, and method. Thus it becomes to the ambitious and serious employee, in a small way, a university, in which character is broadened, by intelligent instruction practically applied."

When asked if a man with means but no experience would be safe in embarking in a mercantile business, he replied quickly:—

“A man who has never seen a horse can't drive one. No; a man must have training, must know how to buy and sell; only experience teaches that.”

I have heard people marvel at the unbroken upward course of Mr. Wanamaker's career, and lament that they, themselves, so often make mistakes. But hear him:—

“Who does not make mistakes? Why, if I were to think only of the mistakes I have made, I should be miserable indeed.”

I have heard it said a hundred times that Mr. Wanamaker started business when success was easy. Here is what he says himself about it:—

“I think I could succeed as well now as in the past. It seems to me that the conditions of to-day are even more favorable to success than when I was a boy. There are better facilities for doing business and more business to be done. Information in the shape of books and newspapers is now in the reach of all, and the young man has two opportunities where he formerly had one.

“We are much more afraid of combinations of capital than we have any reason for being. Competition regulates everything of that kind. No organization can make immense profits for any length of time without its field soon swarming with competitors. It requires brain and muscle to manage any kind of business, and the same elements which have produced business success in the past will produce it now, and will always produce it.”

A GROCER AND HIS CHANCES OF SUCCESS

By *FRANCIS B. THURBER*

Editor of the "American Grocer"

IN CONSIDERING the desirability of the grocery business as a vocation, it may be said at once that it is a business entirely devoid of sentiment. It is a line of work based upon the cold, hard lines of supply and demand; of small profits and quick sales, and the ability to discriminate between good and bad credits.

The universal demand for groceries is the best argument in favor of the grocer. He represents a daily and hourly necessity on the part of the people, rich and poor, great and small. If he possesses a fair share of business tact, and a physique which will not rebel at early and late

hours, he certainly has a field in which to obtain a good living and a fair chance of accumulating a competency. There are so many conditions surrounding the trade, that there is no fixed standard that can be set up for assuring success. For example, a painstaking and hard-working grocer doing business on an avenue on the west side of New York City, in an experience of twenty years, encountered three different changes of environment. The neighborhood was first filled with wealthy residents, who bought the best grade of goods, regardless of price; then came a middle class, who bought groceries economically, from month to month. He is now catering to a third class, one that subsists, apparently, from day to day, and whose purchases conform to that method of living. He maintains himself where others might fail, because of his ability to adapt himself to every new condition. Herein lies the secret of a grocer's success, anywhere,—adaptability. The corner grocer carries a stock of vegetables and fruits, and caters to his immediate neighborhood. The French grocer, the Italian, the Chinese, and the Hebrew, carry lines that their respective custom calls for, and that are entirely distinct from those of the American grocer.

There are two natural subdivisions of the American trade: that of the man who is patronized by the transient class, which may or may not include family trade, but which is never retained in competition with cheaper prices in other stores, and that of the man who caters in a large way to families, hotels, and restaurants. The natural evolution from both these subdivisions is the survival of the man whose credits are well distributed, and the falling by the wayside of the one who has been injudicious. Many are forced to the wall by the accumulation of apparently small credits, extended from time to time without attracting special attention. Credits almost naturally force themselves upon the dealer. If he is strong, and a good student of human nature, he will weed out the bad credits and cultivate the good ones; but, if he is not alert, he will find himself without goods, and, also, without the money to pay for more.

The department store has effected a great change in the grocery trade of the large cities. The ability to purchase goods in large quantities and to advertise them with other specialties, and the natural inclination of the trading public to save time and bother by purchasing everything under one roof, takes the trade from many a local grocery. Thus the department store may take the profit which in other days was divided between the wholesale and retail grocer. It is needless to say that the trade has been injured thereby.

Improvements are constant in the handling of groceries. To-day one can purchase, at any well-stocked grocery store, almost everything in cans or jars, all cooked and ready for consumption, which lessens the

labor of the retail grocer in a very considerable degree, as indeed it does that of the housewife who patronizes him.

No better or more striking example of success in the grocery line can be found than that of James Butler, a thrifty, hard-working young man, who began with one small store, and the determination that if he succeeded he would some day have one hundred. In 1901, after a dozen years of the most indefatigable effort, he secured that number. They are widely scattered, in all sorts of localities, from the tenement districts to the fine residential neighborhoods. His example of giving each store exactly what its own customers demand, may be adopted as a rule for a successful grocer. The other requirements may be summed up as follows: To avoid the extending of credit, unless in exceptional instances; to be always honest with customers, and to employ only such help as will win trade by painstaking attention to the public, and devotion to the interests of employers.

BAKING AS A BUSINESS AND AS A TRADE

By WILBUR E. CUSHMAN

IN CONSIDERING the baking business as an occupation, a young man must look at it from two points of view, namely, its practical or technical side as a trade, and its business side. To make my point entirely clear, I want to say that proficiency in both these lines is seldom combined in one person. The majority of the successful bakers in our cities never baked a loaf of bread in their lives. The instances wherein the journeyman baker graduates into the position of a proprietor of his own store are rare in a city where the volume of business is great. He is much more successful in that direction in a small village.

The attractions offered by this trade are few; the hours are long, and the wages seldom range higher than \$12 or \$15 per week. In this estimate, however, I do not place those expert bakers whose services are now very much in demand for light and fancy cake, pastry, and decorative work.

Inasmuch as selling bread is a business, and not a trade, we must consider it from that standpoint. The successful baker must have a mastery of the work of getting his wares into the hands of consumers promptly and cheaply. It is not at all necessary that he should bake bread himself. It will suffice if he knows when it is well and properly baked. It is because a mastery of the business is essential to success, and a mastery of the trade is not, that the lad who wants to become a successful

baker should begin with the delivery wagon or behind the counter, and leave the oven alone.

The delivery wagon is the better of the two positions. This brings him into direct contact with his customers; he ascertains their needs, gives them the prompt service without which custom cannot be obtained, and learns to discriminate between the desirable and the undesirable classes of custom. This personal contact enlarges the young man's knowledge of human nature, and he thereby acquires tact, which is of the utmost importance in any retail business. The collection of bills is one of the duties usually assigned to him, and when he performs this most vital part of the baker's business thoroughly, he is in a fair way to receive promotion.

The delivery clerk is far more important than the salesman behind the counter, for the reason that the bread sold by the latter represents a very small proportion of the volume of sales. The deliveryman is held responsible for the custom along his route. He must keep it up to a certain standard, and give proof of his capacity to increase his patronage. This places him in the line of advancement.

The next step is to become a foreman of the delivery wagons. There he learns how to manage men, which is a most important element of success in every business. If he shows himself capable of keeping pace with increased responsibilities, he is next promoted to the charge of the shipping department. There he completes his schooling and is in a position, if he can command the means, to begin business for himself. To succeed with a bakery of his own, several very important considerations must be met. Locality is of the first importance; the use of the best materials comes next in order; efficient help is a third essential, and this can be obtained only by paying good wages to thoroughly competent workmen. To make the venture permanently profitable, he must study the nature of his custom, from the humblest patron to the highest. He must be ever ready to adopt improved methods, to insist upon the highest degree of cleanliness, and to cultivate assiduously the good will of all. If he can turn out something that is a little better than anything his competitors can produce, he will be in the fortunate position of a merchant with a popular trade specialty, and will make money readily.

NOTE—President Leenhuis, of the United Master Bakers of America, while agreeing in part with Mr. Cushman's conclusion, thinks it equally essential for an employing baker to thoroughly understand the mechanical, as well as the business side, of his work.

In support of this contention he points out that nearly all the failures in the trade are the result of poor goods put before the public, a condition of things that a technically trained employer would not be confronted with. Two of the

reforms which the journeymen bakers are asking, at the hands of legislation, are a shortening of their hours of labor and the prohibition of basement bakeshops.

It is an interesting fact that there are seven brothers, including Wilbur E. Cushman, the author of the foregoing article, who are all engaged in the baking business in New York, and that none of them ever personally baked bread, but began with the delivery wagon. Inquiry proves this to be true, also, of a majority of the successful bakers in New York.

THE SHOE TRADE AND THE CHANCES IT OFFERS

By EDWARD NEWTON HAAG
Editor of "Shoe and Leather Facts"

NO OTHER trade has ever witnessed such strange and radical revolutions as that of the shoe dealer. From the time of the sandal it has been constantly a profound question of the transmigration of soles. From the individual shoe shop to the vast factory of the present day, the transition has been astonishingly rapid. The first step from the old shop to the modern combination was in the community system introduced in New England, by which several workmen occupied the same room in the interests of economy.

During the period of the Civil War, the pegging-machine began to crowd out the hammer and lapstone. Then the sewing-machine began its attack upon the awl and the wax-end, and rapidly other wonderful machines seized upon each part of the shoe, and the great factory was evolved, with its battalions of workmen, each devoted to but a single feature of shoemaking.

As any man can do one thing better than many things, this perfect method of producing a shoe enhanced many times the value of the workmen. Occasionally some feature of this machinery would afford a monopoly of manufacture, but only in one department. Usually the machinery was owned by the manufacturers of it, and was leased to the manufacturers of shoes. At times, the machines were sold outright. Formerly the system of leasing was complained of as oppressive. Now it has been so modified that little is said against it.

In all circumstances, the new system of producing shoes tended to reduce the price and profit of a single pair. Only fifteen years ago the profit ranged from fifteen to one hundred per cent. . Now the great factories, producing from five thousand to fifteen thousand pairs a day, are content with a profit of from one to five cents a pair. Inevitably, this



condition has worked with prodigious force against the small manufacturers, and many of them have been crowded out of business.

It is a curious fact that the reduction of price by the manufacturer has always been in advance of the education of the shoe buying public. When a machine-made shoe was first put upon the market at five dollars or six dollars, purchasers fought shy of it. When it was reduced to three dollars, it was pronounced certain to be worthless. It is now a fact that the great mass of the public seek a two-dollar or two-dollar-and-a-half shoe, and know they can get the worth of their money out of it.

With the reduction of price, consumption has increased. Except for the higher-priced goods, the repair shop has been relegated to the background. The cheap, patched, re-soled and re-heeled, shoe, is seldom seen. A new shoe can be purchased at a price almost as low as the cost of the repairing. Men, women, and children, wear three pairs of shoes a year, where formerly they wore but one.

The revolution in the making of shoes has been equaled or exceeded by the revolution in the production of leather, especially of the finer grades. Ten years ago the Morocco Manufacturers' National Association, then with fewer than one hundred men in control, met at Long Branch, and among other things discussed the decay of the demand for "pebbles," "straight grains," and "maroons," which had been the vogue for one hundred years. It was confessed that French kid was the fad, and that women and children wanted nothing else. General J. Parke Postles, of Wilmington, Delaware, declared he would try to make French kid. Others agreed to attempt the solution of the mystery. Plants were transformed into experiment stations. Profits of years melted away in tests of the virtues of alum tannage, which was supposed to be the basis of the French method.

The leather produced was, for the most part, brittle and worthless. Some one hit upon a combination of gambier and alum, and a great improvement was observed; soon followed the invention of "chrome tannage," made by the use of chromic acid. By this method, the tannage of kid skins was revolutionized, and one young man, to whose inventive faculty the device was largely due, and who, because of his persistence in expensive experimentation had sunk between twenty and thirty thousand dollars, became a millionaire.

Within the ten years that have passed since the Long Branch convention, every foreign skin has been driven out of America, and American tannage controls the international market. From the glazed kid, popular fancy is now passing to a kid with a patent-leather finish, and America is collecting raw goat skins from all parts of the world and sending its wonderful tannage, beautiful, pliable, and unharmed by water, to all parts of the world.

Although the price of goat skins has considerably advanced, cheapening of manufacture and increase of demand have led to lower prices of kid shoes. Women and children are not permitted to monopolize this material. Seeing the beauty and comfort of the kid, men demanded them and the glazed kid, or kid with patent-leather finish, is now almost as commonly worn by one sex as by the other.

Philadelphia was early an important center of the Morocco trade, and was a pioneer in the manufacture of the modern glazed kid. It is estimated that at this time three-fifths of the glazed and patent kid skins are manufactured at Philadelphia. One factory puts out twenty million skins a year, and several other large establishments have each an output of five thousand dozens of skins a day. While the great shoe manufacturing cities of New England continue to hold their rank in production, vast increase of consumption is met largely through the enterprise of cities farther west. Rochester, Buffalo, Cincinnati, Columbus, Portsmouth, Chicago, and St. Louis, have all come to be important centers, and one of the largest factories in the country for women's shoes is established at Harrisburg, Pennsylvania.

On the shoe trade, the effect of the great department store development was in some sense peculiar. The opportunity to make immense sales for cash tempted jobbers to almost conspire against themselves, for they often ruined, within a year or two, a retail trade that had been thirty or forty years in growing. What were for a time abnormal conditions, are now arranging themselves rationally. The bargain counter is known to be not so much of a bargain counter after all, and with better times there is a decided revival of the single line trade.

A new feature of the retail business is a tendency toward the establishment of exclusive stores for women, often managed by women, and its patrons waited upon solely by women. It is a trend of the trade which is looked upon by some as a humorous fad; but the probability is that it has come to stay. The constructive and executive abilities of women, in this day, are apparently illimitable.

With combination of interests in this trade, which represents an investment of more than a billion dollars, the old-time salesman has disappeared to some extent, as he has from other businesses. In place of the rollicking, startling salesman of other days, there is a more quiet, intelligent, and convincing man, working upon a larger salary. His responsibilities are greater. In some sense his responsibility is similar to that of the purchaser for the great stores where, in a single department, over five million dollars' worth of shoes is purchased per annum, and the purchaser dictates to his manufacturer the styles and qualities, thus following the shoe from the raw stock to the retail sale.

As to the present chances for a beginner being better or worse than those of old, I am satisfied that the opportunity for engaging successfully in the shoe trade is as great now as it has ever been. Brains and enterprise, in this business, have never been at a higher premium.

Let one say what he will in relation to trusts and combines, monopolies of machinery and monopolies of tanning processes, the retail trade remains practically an open field, and there are reasons why the young man, of a bent of mind especially adaptable to the business, should find the field more inviting than did the young men of years ago. The personal equation, which seemed at times to be threatened with elimination by the aggression of the department store and the establishment of retail stores by large manufacturers, is as insistent as ever. Purchasers, even in the larger cities, and notably in less populous communities, like to buy from the individual owner, from an acquaintance, from one who has grown up in the business within their own knowledge. They are willing to pay a trifle more on account of the sentiment associated with the personal element.

Any bright and promising young man, desiring to engage in the shoe business, may now easily acquire a fine stock with the backing of the manufacturer or large dealer. Years ago he would have been compelled to look to his own resources. His place once stocked, success or failure depends upon himself. All this is important, for the individual and distinctive trader, supervising his own business, is now, and will remain, a vital element of the trade at large.

THE MANUFACTURE AND SALE OF HATS

By A. L. BELDEN
Editor of the "Hat Review"

THE old-time hatter, who possessed the requisite knowledge and skill to develop from a given number of ounces of fur a hat "perfect and entire and wanting nothing," has almost wholly passed from the scene of activity in the hat manufacturing industry. In his stead we now find factories of varying magnitude in which the work is conducted by men and women skilled only in a part of the work, or engaged simply as guides and overseers of the machines now employed in practically every process of production. Where formerly the individual workman possessed and exercised the ability to make the hat from beginning to end, requiring two or three days for the production of a single hat, to-day a large manufactory, employing probably four hundred hands, will

have a daily output of, in round numbers, a thousand dozen hats "ready to wear."

The all-round hatter has given place to trained men and women designated as formers, sizers, blockers, dyers, curlers, trimmers, and numerous other titles indicative of the particular part of the work which each performs; all these are usually included in three divisions, namely, makers, finishers, and trimmers. Each ordinary stiff or soft fur hat, as will be readily inferred, passes through these several hands, a dozen or more, before it is completed.

The work of making a derby, an alpine, or a crusher, really begins in the field, being dependent in the first step upon the hunter or trapper, for as a hat is made of fur it is plain that you must first catch your beaver, nutria, rabbit, hare, coney, or other small wild animal, to obtain the essential fur. The skins of these furry creatures, after the hunter or trapper has sent them to market, are taken by the fur cutter and are to some extent plucked of the long coarse hair; they are next treated to a solution of nitric or sulphuric acid, which is brushed over the fur to kill the natural animal oil it contains, in order to insure free and perfect felting. The fur is then cut from the skin by a machine called a "devil," through which the fur passes undisturbed upon an endless apron, making it a very easy matter to separate it rapidly into the parts of differing values for the intended purpose, the fur from the checks and tails, the belly, and the back of the same animal varying materially in both fineness and strength. The fur is next manipulated by a machine known as the "blower," to more completely separate the coarse hairs, which do not felt, from the finer and softer and readily-felting fur. In this process, each class of fur is kept separate, and is subsequently weighed out and put up in packages, mystically marked, and is then purchased by the hat manufacturer, by whom it is not usually used exactly as purchased, as each maker of hats uses sundry mixtures of fur which he holds as secrets of his own, and which are really of leading importance both from the standpoint of quality and price.

In beginning operations, the hat manufacturer weighs out this fur with extreme precision in single hat lots, and it is then sent to the forming room, where it is put through a machine known as the "former," the fur being carried by a current of air through a chamber to be received upon a revolving copper cone, only one "body" or hat being formed at a time; when all the fur to make this body has been deposited upon the cone, the fur-covered cone is removed, wrapped in a wet cloth and immersed in hot water, and is then "slipped" from the cone and passed on to the examiner, who touches up weak spots by adding particles of fur. This "bat" or "body" of fur is again wrapped in a cloth in which it is gently rolled to "harden," for the purpose of securing the necessary

consistency of felting, and is then ready for sizing, by hand or machine, the hand-work being performed in the "battery," which consists of a structure of four or more sections surrounding a central compartment filled with hot water, into which the body is dipped from time to time during the operation of rolling or sizing—for the purpose of shrinking the cone to the required hat size. The body is then dried, and the exterior surface is shaved by a sharp knife to remove the remaining hairs.

Subsequent processes include "second-sizing," for further reduction and more perfect felting; "stiffening," which is effected with a solution of shellac in alcohol, or shellac in water, the hats thus stiffened being designated as "wine-stiff" or "water-stiff." Drying again becomes necessary, and then dyeing, and afterward "blocking," the body being shaped upon a block of the required set and size. The hat is next put through the finishing processes, including ironing and a general touching up. It is next "curled," the brim being shaped or set, rolled high or low or left "flatset," according to the "style" to be produced. Not merely highly skilled but peculiarly skilled labor, the highest paid in hatting, is employed in curling. Finally the hat is given to the "trimmers," women and girls, who sew in the leather, the "tip," and lining when required, bind the brim and put on the band and bow. After careful examination, the finished hats are packed in paper boxes, and these are put in wooden cases—and when the shipping clerk has delivered the cases to the expressman, the hats pass from fur to forgetfulness, as far as the manufacturer is concerned.

The silk hat is manufactured by a less intricate process than is the derby. The most important material for the former, that is, the silk plush, is imported from France. It is made there by a process which is a secret that American hatters have tried in vain to fathom. The making of silk plush has often been attempted in this country, and our product appears to be fully as good as the French until a hot iron is applied to it for "finishing," when it immediately acquires a brownish tinge and is useless as material for hats.

Making the braid straw hat is a simpler process than any of the others. The braid is almost wholly imported from China, Italy, and Japan, and when received usually must be bleached or dyed, according to whether it is to be used for white or colored hats. After the bleaching or dyeing, the braid is ready to be sewed into hat shape, girls doing this work on specially constructed sewing-machines, and finishers pressing the hats into the shapes specified by the designers.

Since the hat is subject to the caprices of fashion, its effective production affords the individual maker ample opportunities for the exercise of artistic taste. The greater the development of art in the finishing

touches, the larger the measure of success achieved by the manufacturer, providing, of course, that the quality is up to the standard.

Hats constitute a commodity in universal demand, and any man of strong business sense, good taste and abounding industry, who is able to make a hat that will appeal to the buyer as being good in quality and attractive in shape, should be able to achieve success as a manufacturer of hats. Throughout the country, there are numerous hat-makers conducting business on a moderate scale, who have not been driven to the wall by the competition of the great manufacturers, but who make good hats and are doing enough business to enable them to accumulate modest fortunes.

CONDITIONS IN THE HARDWARE BUSINESS

By EDWARD C. VAN GLAHN

President Hardware Association, New York

Two things give to the hardware business an attraction that is not enjoyed by many other mercantile lines, namely, the staple character of the goods and the universality of the market for them. All products of iron, of steel, of tin, of copper, and the tensile metals, have an intrinsic value which is variable only to an insignificant degree. Therefore, a stock of goods purchased by the hardware merchant represents a greater negotiable value than does the manufactured product of almost any other material.

The marketable value of goods of this character is derived, of course, from their general use, and from the fact that they enter into every trade and constructive vocation, from the fine watchmaker's craft to the tremendous operations of the iron steamship maker. Another point is this: The great iron industries of the United States are still in their infancy, and, with their growth, will come wider fields and greater operations for the dealer in hardware, whose business is so closely connected with the mine and smelter. Of the many million dollars earned in the iron business during the year 1900, a fair percentage found its way into the hands of the retail hardware man. For all these reasons, and for others which I may be permitted to mention, this is a clean and honorable calling, and its future is very bright.

The hardware business of recent years has grown to include a vast variety of specially patented articles, paints, oils, and yacht supplies, in addition to the lines formerly carried, and the business is still in a transitory period. In order, therefore, to be successful, the young man who

selects this as the opportunity he is seeking for a life-work, must keep pace with the changing conditions. New inventions are probably more numerous here than in any other branch of trade.

The training which is most useful is that given by learning the business behind the counter. The great variety of goods generally carried in stock, and the frequent changes in prices, require a trained memory and careful attention to details, habits of neatness, and method. In striving to attain a thorough knowledge of all branches of the trade, a young man learns to economize his time; and a careful, persistent effort to become familiar with the new conditions and new requirements will equip a clerk for a career as proprietor of a business of his own.

Of course there are stumbling blocks. One should be careful, especially, in stocking up. It is one of the peculiarities of the hardware trade that a new device may revolutionize an established demand and render obsolete the older article which formerly satisfied that demand. A small stock, frequently replenished, obviates this difficulty. The market is also filled with devices which appear to be useful, but which become dead stock because of the fact that the public does not use them. A good rule to apply to the purchase of patented devices is to keep well within the demand. No hardware dealer has ever yet been found who had the keen discrimination and the ability to select the salable from the unsalable in the line of new inventions in advance of actual trade experience.

One of the most important departments of the hardware business is that of building material. As this trade is largely with builders, who buy on time and expect to pay for the goods as buildings are completed, it requires good business judgment to know when to extend credit and when to insist upon cash. Many an ambitious hardware merchant has been wrecked on the rock of the speculative builder. The wholesale houses are by no means free from danger in discriminating between the reliable and the unreliable retailer whom they furnish with stock.

In times of prosperity, when iron and all its products receive a distinct boom, conservative methods are not less necessary than in times of depression, when credits are supposed to suffer most. In the demand for tools, implements of trade, builder's hardware, cutlery, kitchen utensils, and the finer specialties, there is very little difference as between the two economic extremes. Good goods are always needed and can always be sold by people who know their markets. The profits are substantial enough to justify the investment of all the capital, and all the attention to details, now given to this line.

One of the largest dealers in hardware, whose life has been for many years an inspiration to young men, in speaking of his business as a desirable one for young men to enter, has said: "If I had to live my life

over again, I should unhesitatingly choose the hardware business, although I know there are many who will not agree with this view. I know of no better training school for a young man than to go behind the counter of a hardware store and learn the business from the bottom to the top. It throws one in contact with people in every walk and condition of life, and the experience gained, if properly utilized, broadens and develops a man and fits him for the duties and responsibilities of life."

SUCCESS IN SELLING CLOTHING

THE clothing business is naturally of vast extent and great importance. The men who make and sell clothes comprise a large and influential body of citizens, and in their ranks there is always a career for the young man of business instinct and ability. It is a fact that nearly all of the biggest manufacturers of clothing in the country began behind the counter of the retail store or in the workshop of the factory. The leaders in the business are men who are experienced in every step of clothing manufacture, from the making to the final disposal of the garment.

Broadly speaking, the business is managed as follows: A number of cloth factories are financed, or aided, by a commission house, which undertakes to place their product with the wholesale cloth dealers and wholesale makers of ready-made clothing. The wholesale cloth dealers supply the retailers and merchant tailors, and the wholesale ready-made clothing manufacturers supply the stores, which in turn sell to the people.

Styles, fashions, patterns, and textures change frequently; so it is desirable for a man in one branch to be acquainted with the details in the other branches. Hence, the opportunity for the young clerk in a retail store to prove his ability and rise nearer to the actual production, where there is always the greatest capital and profit.

Fortunes are to be made in the retail clothing business by men of ability, taste, and judgment. In many occupations, success is achieved by adhering closely to a regular course of business routine, but in the clothing business one must have wider sympathies and perceptions. It will be noticed that in cities of moderate size, the leading clothier is often a public spirited citizen, as well as a man of business ability. He keeps in the closest touch with the townspeople. He studies their wants and desires and tries to know them and to be personally known by them.

Another important qualification in the man who would manage or own a successful clothing establishment is executive ability. The business is one requiring many employees, and the employees, to the eye of the customer, reflect the business itself. The manager selects conscientious men and trusts them, giving them all the responsibility they can carry. He trains efficient officers and makes them responsible for the work of those under them in their department.

The rewards of the clothing business are of course commensurate with the scope with which it is carried on. In a small way, it is a safe and conservative business, always assuring a comfortable living to the careful man. On a larger scale, it becomes more speculative and requires much greater capital. Wholesale houses, large commission houses, and factories, deal in millions of dollars' worth of goods annually, and to competent administrators yield large margins of profits.

MAKING AND SELLING JEWELRY

*By CHARLES L. TIFFANY
Of Tiffany & Co.*

BUSINESS honor and artistic taste are pre-requisites of success in the jewelry trade. This is a country of wealth, and all but its most humble citizens are purchasers of jewelry in one form or another. Consequently, it is a prosperous land for the jeweler, and, indeed, no trader or merchant is, on the whole, more respected in the community than he. It is a business requiring many special qualifications, some of them to be acquired by learning and experience; others must be natural possessions. A fine, keen, highly-trained judgment is essential to the jeweler. He deals in the smallest and most precious goods, and a trifling error of judgment may mean the difference between profit and loss.

The cheat, the counterfeiter, and the burglar are the special enemies of the jeweler. Imitations of the valuable metals and counterfeits of the precious stones are, through scientific processes, becoming more marvelous each day; so the expert must never stand still in his knowledge if he expects to escape being defrauded. His precautions against the robber and burglar must be equal to every new attempt to despoil him. Therefore his defense is frequently costly.

The relation of the jeweler to the public is peculiar. He stands, as to his customer, in a light occupied by scarcely any other tradesman. Rarely does the purchaser know the exact value of the article he is buy-

ing. He must rely upon the honesty of the jeweler to avoid being deceived with an imitation of little value, and upon his honor that too large a profit is not exacted from him. On this account reputation is the most valuable asset of the trading jeweler. His business is practically assured when his reputation as a reliable dealer is established.

There is another and important side to the success of the jeweler. He must have an artistic taste. He must himself be an artist. More and more, people are coming to realize that inartistic jewelry is far worse than no jewelry at all. If the jeweler is unable to design or execute artistically himself, he should at least possess the ability to dictate to others how his customers should be served. This applies even where the jeweler is a small retailer depending upon the wholesale houses for his stock; for, unless he keeps an attractive and artistic stock, he has little chance of disposing of his goods in paying quantities. Jewelry sells through its appearance.

The manufacture of high-class jewelry might be said to be still in its infancy in America. A few years ago there was not a single diamond-cutter working regularly in the United States. All our diamonds had to be sent to Amsterdam and other places in Europe to be cut or recut, but in recent years some of the greatest cutting experts in the world have received employment in New York. One of the largest establishments here keeps several cutters busy, and it is beyond question that the industry will grow with leaps and bounds, like all other industries in this country. Diamonds being the most popular stones, the quantity of them dealt in is greater than that of any other gems; pearls come next, but all precious stones are dealt in, in large quantities.

The profits made by the jeweler are variable. The nature and quality of his business determines what percentage he shall exact on his investment. Even in the manufacturing department of the trade, in which nearly half a million people are now engaged, so great is the possible variation in skill and expertness, that no fixed rate of remuneration for services is possible. An artistic designer can earn from \$150 to \$350 a month. An expert judge of stones is equally well paid. Salaries of the higher class of workers in the factories range from \$30 a week to \$100. On the other hand, there is a large number of poorly-paid workers in the jewelry trade. In a factory where gold chains are made, in a neighboring state, the average wage for women workers is slightly less than \$6 a week, and the average for men is \$9 or \$10; of the carders, press hands, and enamelers, the women receive from \$5 to \$12 and the men from \$8 to \$22. The workers who actually make the jewelry, however, are a well-paid body of artisans, earning anywhere from \$20 to \$150 a week.

THE DRUGGIST AND HIS BUSINESS

By JOHN A. SNIVELY
Editor "The Druggists' Circular"

IT WAS only a few years ago that the young man who had aspirations to become a druggist began as a general utility lad in the shop of an apothecary. There he served for several years at the undignified and profitless task of washing bottles, sweeping the floor, making the fire, and running errands. More economical methods, from which drudgery, formerly considered by old fogies an essential element, is practically eliminated, have been evolved for the training of a druggist. Under the old system, a young man might spend ten years as an apprentice, and at the end of that period possess but a limited understanding of his business, because of his very slight knowledge of the principles of pharmacy; only such knowledge, in fact, as he could pick up by untrained reading from books, or as his employer might choose to impart. It followed, therefore, that he found himself compelled to work in very narrow grooves, and that he would be handicapped by lack of training in the development of his business, and, later, would be obliged to go back, and, at great loss to himself, supply his deficiencies or find himself dependent upon the knowledge of other men. This phase of the situation has become so important that it is now being agitated throughout the whole country, and it is strongly urged that graduation from a school of pharmacy be made the condition of application for examination by the state board of pharmacy. The wisdom of such a course is obvious. In some states a college diploma is accepted, and no further examination by the board of pharmacy is required.

The course in the ordinary college of pharmacy, to-day, covers a period of three years, and is divided into three sessions of six months each. Matriculation and lecture tickets cost about eighty dollars for the first year; pharmaceutical work and chemical work are extra. About seventy-five per cent. of the young men who are attending lectures at colleges of pharmacy are at the same time working in drug stores. Such a life, however, is arduous, and it takes a plucky and ambitious man to endure it.

The drug business is in a state of transition. The question is: Shall the functions of the drug seller and the pharmacist be separated. The pharmacist prepares drugs, while the druggist of to-day sells everything, from salts to combs and brushes. The one is a scientific man, the other

a merchant. Commercialism has been so aggressive as to force the fusion of science and business,—two eminently uncongenial companions,—and this companionship has operated to the disadvantage of the scientific man. Under the present system, the pharmacist is deprived of many emoluments of his profession. He is called upon to prescribe for patients as well as to prepare the medicine, a service for which he should receive the same pay as a physician. A man goes into a drug store, describes the symptoms of his complaint to the man behind the counter, and asks for a remedy. If a box of ointment is prepared from simple and inexpensive ingredients, and a fair price is charged, the customer complains that he is being imposed upon. He does not take into consideration that he has received the benefit of the druggist's skill in prescribing, and has escaped the payment of a physician's fee.

For many years the relations between the druggist and the physician were harmonious. The former sought to promote the interests of the latter by sending patients to him, and the physician reciprocated by putting all his prescription business in the hands of the druggist who favored him. The relations to-day between the druggist and the physician are different—in many cases strained. Physicians complain that druggists are depriving them of business by treating minor cases, and by urging the use of proprietary medicines, upon which considerable profit is realized. The druggists, on the other hand, claim that as proprietary medicines are usually designed to relieve specific ailments, there is no impropriety in their suggesting the use of them where the symptoms are unmistakable.

Of late years, science has multiplied, and investigation has developed, new and valuable cures. The use of chemicals has become more extensive and, consequently, the proper understanding of them requires much study. The liability to make mistakes in the making up of prescriptions has increased, and, therefore, greater care and skill are necessary. As a protection to themselves, rather than as a protection to the public, the druggists have in many instances brought about the enactment of laws which define the responsibility of the drug clerk, and prescribe penalties for errors that may be the result of either ignorance or carelessness.

It would seem that, with his increasing responsibilities, the pay of the drug clerk should increase proportionately; but this has not been the case, owing, no doubt, to what some claim to be the overcrowding of the business. Colleges of pharmacy continue to turn out graduates considerably in advance of the increase of the drug business. It has been the idle dream of many that the profits of the drug business are particularly alluring. It is true that the profits upon certain goods are large—say two hundred per cent., but, on the other hand, the profits upon seventy-five per cent. of the goods sold are small, which brings the

average profit down, in many cases, to a non-paying basis. Another feature of the drug business that attracts many young men is its element of professionalism. They consider it more dignified to follow a business which requires a college training, than to become a clerk in a dry-goods shop or a grocery store.

But, while the profession of pharmacy is considered by many of its followers to be rather overcrowded, the same might be said of all professions. The country drug store, or the drug store located in some village or town remote from the great cities, is considered the more promising field of endeavor for the rising druggist. In such places he has not the great department stores to compete with. There, also, he can bring the element of personality into operation to his advantage, whereas, in the great cities his individuality may be lost sight of by the passing throng.

HINTS ON THE VOCATION OF THE LUMBERMAN

IN THE United States, where the demand for timber and manufactured lumber of all kinds is constantly increasing, and where vast forests of hard and soft woods are still growing, the young man who is casting about for a vocation may well give the lumber business careful consideration.

While it remains for governmental authority to solve the problems of timber culture and the preservation of the wooded domain from destruction, the field of effort of the lumber producer is still wide and profitable, operating, as he does, from the vast pineries of the north to the cypress groves of the extreme south. The six hundred varieties of trees which experts have found indigenous to the soil of the United States, and largely available for commercial purposes, will afford a profitable study to the novice. He may rest assured that the demand for wood will never cease. Every house that is built, every boat that sails, and every railway train that is constructed, requires many varieties of wood, and the man who understands the business in all its branches can usually find an opportunity to put his knowledge to good account. No matter how dull trade may be in certain lines, there is always a demand for this commodity; and, when times are prosperous, the demand often exceeds the supply.

The best way to learn this business, as in most others, is to begin at the bottom. A theoretical knowledge will not suffice. One must learn

the different kinds of wood, where they grow, how they are cut and dressed, and at what cost they reach the market. This information is of incalculable value to the lumberman, whether he be in the wholesale or retail trade. General Russell A. Alger had the right idea. He went out, when a young man, into the woods, with an ax and a measuring rod. With his wife to keep house for him, he set up a log cabin in the wilderness, and mastered the details of the business, from the time the ax strikes the tree until the timber is ready for consumption. Senator Sawyer had an equally expert knowledge of the business which made him a millionaire and a figure in our national life.

Therefore, while it may seem old-fashioned, it seems to me nevertheless true, that the young man who chooses the lumber business should join a lumber camp. There are thousands of these in active operation in this country. The young fellow may go as a tallyman, a driver, a handler, or a machinist, but he should stay until he knows, from the experience obtained by roughing it, the methods used in getting out logs, the best kinds of machinery and how it is operated most cheaply, and the readiest means of transporting the boards to market. If he be a man of up-to-date reading and intelligence, he can discriminate between the woods that are popular and those that have gone out of use or fashion. This is especially important in hard woods. In walnut, a few years ago, there was an active consumption in America, whereas, most of this wood is now shipped to Hamburg and other European ports. Cherry has passed through the transition period, and there are constant changes to be noted with regard to other woods and their availability.

After the technical details are mastered, the young lumberman will be in a position to take the next step, which is to familiarize himself with the conditions surrounding the sale of lumber in the large cities. A great deal of tact and discrimination is necessary in this branch of the work, for a large part of it is done on credit. A dealer who is not a producer will find the early training I have indicated all-essential. His mercantile instincts will be sharpened by his knowledge of grades and cost of production, and he will make a better merchant than the man who takes these things for granted.

The manufacture of lumber involves so much detail requiring expert treatment, that no dictum should be ventured upon in a general article of this kind. Specialties are best mastered, however, after one becomes familiar with the cost of production and the other data obtained by handling direct from nature. The names of these specialties are legion, and they are employing thousands of skilled workmen and using up millions of dollars' worth of material every year. The trained wood-worker can never be displaced in the industries of this country.

THE SAILOR AND HIS MAKING

By RUDOLPH JAMESSEN

Master Marine of the Neuges of the Mallory Line

EVERY boy at some time or other intends to become either a soldier or a sailor, and while this feeling indicates a spirit of adventure often tinged with true manliness, the gods deserve praise for making such intentions, in ninety-nine per cent. of cases, impossible of realization. Sailors, even more than poets, are "born, not made," and if the trades and professions were thoroughly investigated, I do not hesitate to say that among those who follow the sea as a matter of business there will be found the greatest number of discontented misfits.

A sailor's life is a life of contrasts, and the boy who intends following the sea as a means of livelihood should possess the spirit of contentment to a great degree, for a contented mind is the only foundation on which the career of a successful sailor can be built. The aspirant must also possess a hardy constitution—eyes that are faultless; nerves that are ready to sustain any shock; muscles that can endure the severest labor; and a perceptive faculty that can instantly comprehend a difficult situation. His education need not be classical, but a sound elementary education similar to that given in the public schools is absolutely necessary. He must be skilled in arithmetic and algebra; a ready correspondent, and in conversation a lad of few words. Whenever these qualities are possessed by a boy and he expresses a reasonable desire to be a sailor, by all means let him go to sea. Let all such sentiment commonly known as "mother's love" in this case be abandoned, for unless this lad becomes a sailor, where his chances are 100 to 1 for success, he will become a failure as a landsman, and the country will lose the services of a type of man she can ill afford to lose.

A boy of this type should go to sea before he knows the allurements of life ashore—in fact the world's greatest sailors have all gone to sea when boys—some of them mere children. Their young minds are thus modeled to suit their environment, and they naturally become adapted to their peculiar circumstances, whereas, a land-loving sailor is a humbug. Parents, especially mothers, will think this advice cold-blooded, but they should weigh the facts and meet the situation from the standpoint of duty, not from the spirit of parental affection which in cases of this kind has blighted many a noble life.

In sending a boy to sea, secure for him a berth with a shipping company of good repute and be sure that the first five or six years of his experience are spent on sailing ships. Long voyages make good sailors, while trips of short duration, with frequent visits ashore, make good landlubbers. Avoid sending him to sea in a steamship, as he will lack the essential work that develops a thorough navigator. All successful sailors served their apprenticeship in "wind jammers"; have made long voyages, and have either gone to sea as apprentice boys or as boys before the mast.

After the first four or five years thus spent, if he has been diligent in his studies in seamanship and navigation, he should be prepared to sit for his first examination as second officer. About one month's study in a school of navigation ashore is usually necessary to prepare for this test. The cost is trifling and should have been saved from his salary while at sea. The examination is stiff, but it can be mastered by a man of intelligence, and if passed successfully will lift the budding commander into a position of trust. He will receive a certificate or license which authorizes him to act as second officer, but such candidates, being young and inexperienced as commanders of men, usually go to sea again in steam vessels, acting as third or fourth officers with a salary of about \$100 a month. After two or three years thus spent, they again present themselves for examination to win the chief officer's certificate. This test is not as difficult from the navigator's point of view as the first, as the examination tests more the candidate's executive ability, his skill as a commander and as a man of business. To be successful means to earn a first-class salary, and to be elevated to an enviable degree in the profession. The salary of a first mate varies according to the reputation of the firm under which he sails, but as an average it attains the proportions of that of the well-to-do professional man ashore, with many perquisites added.

The next great step to be taken is from first officer to captain or shipmaster. Usually many years elapse before this ideal is reached, and rightly so, because a sea-captain is a combination of many personalities,—navigator, commander, diplomat, and man of business,—a development which can be attained only through many years' experience; and whatever a boy's notions may be concerning sea-captains, it may be taken for granted that they are in every respect ideal men, well educated and capable of meeting any emergency that may transpire. Their salaries in many cases are large, while with many firms they receive anywhere from \$300 to \$700 per month. They are often paid according to the tonnage of the ship they command, and often they are partners in the firm under which they sail. Unlike the officers under him, who have regular hours for duty, the captain is on duty 365 days per year.

His responsibility never ends, and when the lives and treasures committed to his care are considered, the many dangers of the sea, the complications that might ensue in foreign countries, a sea-captain can correctly be designated a "live man"—a being who never sleeps.

In conclusion, I would add that a position as shipmaster can be attained by any boy, however poor, provided he is built on a solid basis. Such men are needed, and if the future can safely be inferred from the past and present, I do not hesitate to say that American shipping will revive and again become a powerful factor in the commerce of the world.

HOW TO MANAGE A HOTEL SUCCESSFULLY

By R. F. WHIPPLE

Proprietor of the Parker House, Boston

MANY persons believe that it is easy to manage a hotel. They are quickly disabused of this idea, however, by a brief experience in the hotel business. They soon learn that their lack of training is a very great disadvantage. A man cannot expect to conduct a hotel with the highest success without years of experience. He would better, if possible, begin in his early youth. Service as a bell-boy or under-clerk should be the first step. On these lowest rungs of the ladder, the opportunities to learn the fundamental rules of hotel management are greatest. By degrees the young man who begins in some subordinate place in a hotel absorbs an accurate and far-reaching knowledge of human nature—the kind of knowledge which is more useful than any other to the hotel man.

A great majority of the men who fail in the hotel business owe their misfortune simply to the fact that their understanding of their fellow-men and women is not adequate to the exigencies of their occupation. Not only must the hotel man be familiar with human nature in its broad and general aspects, but in its special peculiarities. He must be able to appreciate and cater to a large variety of individual tastes and requirements. He must understand and supply the demands of numerous special classes of hotel patrons.

In addition to the deft, tactful handling of guests, the manager must be able to successfully meet another human element which presents more difficulties than do the patrons. I mean that he must be able to control and get the best work, with the least possible friction and loss, out of the hotel servants and other employees, who in every hotel consti-

tute a very serious problem and almost always are what might be called the hotel man's *bête noir*.

Only a Napoleon in hotel management could, without experience, solve the innumerable little problems which come up in the course of a day. Few businesses present so many details which seem insignificant, but which demand careful attention if success is to be achieved. Yet I am often asked by inexperienced young men to give them positions approximating in responsibility that of manager. Some of these are new graduates from Harvard. They tell me that they "want to get to work and earn their living." They say that they are "willing to do anything," but when I offer them certain positions there seems to be a limit to their willingness. One young man came in recently and said he thought he would like to enter the hotel business. "Can you keep books?" I asked.

"No, I cannot keep books," he answered.

"Do you want to take charge of the keys?"

"Well," he replied, "I think I am a little too old for that sort of work."

"You would not want to be a bell-boy, or go into the kitchen, would you?"

"Certainly not," he answered promptly.

I then told him there seemed to be nothing he could do in the hotel business. He apparently thought that he should be given at once the position of assistant manager. In my business, as in every other, there is a great need of competent young men who are willing to begin as "hewers of wood and drawers of water."

As I have already intimated, one of the most serious problems of the hotel manager is that presented by the staff of employees. Poor servants can do more to destroy the patronage of a hotel than almost any other single cause. If a guest finds his room improperly cared for, or if he is carelessly served in the dining-room, it is unlikely that he will return to this hotel. It is false economy to pay low wages to servants. The only sensible plan is to pay well and insist upon good work. Aside from the tendency to indifference and carelessness on the part of servants, the manager must combat their inclination to quarrel among themselves. It is very difficult to induce a large corps of servants to work together in harmony. There is a certain type of serving woman who is never so happy as when raising a disturbance. I have seen such a creature, by idle gossip and other means, start up a contention which caused the whole force to threaten to leave. One woman, within the space of two hours after arriving, had the servants in an uproar; half the entire force of scrub-women were giving notice of departure. One must be an expert reader of character to avoid getting such disturbers into his house. It takes time to obtain a force of employees which in

any way approximates the standard of efficiency desired by the good manager. A thoroughly competent servant is a treasure, indeed. When I find one, I use all reasonable means to keep him or her in my employ. Constant changes in the force are detrimental to the best interests of the hotel. Guests who have been pleased like to find on their return the same clerks and servants. They thus begin to feel at home in a house and are likely to become regular patrons.

Perhaps the most important employee is the room clerk, or the man behind the desk. The great success of any large hotel is chiefly due to the skilful way in which prospective guests are met at the desk and provided with accommodations. The room-clerk must be a man of tact, geniality, and unerring courtesy and patience. He should, in addition, be a sort of human encyclopedia, directory, steamship and postal guide; in short, a fountain of universal knowledge and information. He is expected to remember every one who has ever been a guest at the hotel; to assign each guest to the best room; to laugh at every joke related to him, and to lend a sympathetic ear to every traveler's tale of woe.

After the room clerk, in order of responsibility, comes the steward. One of the best hotel men in America has said: "The rest of the house will run itself if the kitchen is well conducted." The effect of a fine hotel building, attractive rooms, and courteous attention, is nullified if the culinary department is below the standard. Besides the danger of inferior work in the kitchen, the manager must provide against the leakages that may occur there. Help in the kitchen have many opportunities to commit small thefts, which in the aggregate may drain a house of its profits. Teas, coffees, small groceries, can be very easily carried away in the pockets and in small packages. Carvers, moreover, can save or waste a small fortune in a year. One man can serve several more good orders from a turkey than can another and satisfy the guests just as well.

The chef is, of course, always a personage in a large hotel. Many a house has been made or ruined by the head cook. His economy or wastefulness; his skill in preparing appetizing dishes; his ability to manage his assistants; his method, or lack of it; his habits of promptness, or the reverse, have a very material effect, good or bad, upon a hotel's reputation. The manager must treat the chef with consideration, for if he is a good one, he is what is called, in the phraseology of slang, "a rare bird." Few cooks can even roast a piece of beef in the best manner. Two pieces of meat, like in quality, may be so differently cooked as to have no resemblance when served. One may have all the juices preserved and be most appetizing; the other may be dried up, tough, and unpalatable. The difference lies in the skill of the cook. This is likewise true of steaks. Good meat cooks command high wages

in first-class hotels. But the supreme test of a chef is his soup. It is by this that he is chiefly judged when employed.

The head-waiter is another employee who occupies a very responsible position. He must answer for the comfort and convenience of guests during meals. He directs the waiters and is responsible for their appearance, habits, and manners. He drills them constantly in the smaller details of proper service. The waiter must know exactly how to draw a chair and seat a guest. He must never serve two courses together, nor serve with one course dishes which should go with another. He should never pass anything to a guest so as to force the latter to take it from his right side; he should never turn the handle of a cup away from the guest; he should remember to have the salt and pepper, vinegar and relishes, within easy reach of the guest; he should never compel the latter to ask for a napkin, for water, or any of the accessories to the dish he is serving. He should not, of course, carry on a conversation with a guest unless encouraged. A good waiter is prompt and attentive, and yet not obtrusive in his service. He moves about swiftly and noiselessly and effaces himself as much as possible.

Few employees are more essential to the comfort of the guest than the housekeeper. It is very important to the management that the linen be always clean, the beds properly made, the rooms kept well swept and dusted. It is the housekeeper's duty to see that the chambermaids are efficient and accommodating, and also honest. It is easy for a chambermaid to steal linen or to condone such thefts. There are careless chambermaids who do not keep account of the linen furnished to each room, with the result that there are frequent losses of sheets and spreads and towels. This means a very considerable expense. When the chambermaid gives immediate notice of the loss, the thief can usually be caught, but after a week or two, this is nearly always impossible. Waiters sometimes allow silver to be carried off. The only way a manager can keep his stock complete is to count each piece when it is locked up in the safe at night. I suppose there will always be hotel thieves; some of them are so expert that it is almost impossible to detect them. Even hotels having well-organized detective forces frequently lose articles. The only course is to charge them up to the profit and loss account; but a manager himself is to blame for losses and for dishonest servants, since it is his duty to watch the latter and to see that they account for everything.

The manager of a hotel is subjected to needless loss if his claim and damage department is not well organized. He may figure on about seventy-five per cent. of his profits being demanded by the man who leaves his valuable diamond stud in the wash-room; by the woman who leaves her satchel in the waiting-room; or by the individual who induces him to cash a check on a bank two thousand miles away. He

must constantly guard himself against being cheated, but even if he exercises the utmost care he is bound to be swindled occasionally.

I am a thorough believer in spending money in a hotel for future profits. There are managers of successful houses who may hesitate, for example, to pay fifty thousand dollars for an ice-machine, but the latter is sure to prove a good investment in any hotel of reasonable size. Some men refuse to look ahead. I know managers who have the laundry work done outside because of lack of facilities for having it done in the house. It costs comparatively little to install a steam laundry plant, yet money is saved thereby and the hotel is benefited in several ways.

Many managers pay too little attention to the furnishing of their houses, despite the fact that it is very important to have the rooms comfortably and attractively furnished. Uncomfortable beds and bare and cheerless apartments are very detrimental to a hotel's success. Tasteful furnishings give a house character and distinction, even though they are not costly. The beds, particularly, should be good, and every room should contain at least one easy chair, and be well heated in winter and kept cool in summer. There should be attractive pictures on the walls; running water, both hot and cold, in all the rooms is a valuable adjunct to every hotel, and when good soap, and clean, soft towels, are supplied, any reasonable guest will be satisfied. These may seem like insignificant details, but nothing that will add to the well-being of a guest is beneath the manager's attention.

A wide divergence of opinion exists among managers as to the advisability of advertising his hotel. If it is a large, well-conducted house, I believe in making it as well known as possible through certain channels. The best advertising is that done by guests who depart satisfied; they not only return but probably will recommend the house to friends. It is never necessary to advertise for the patronage of commercial travelers, or other business men who travel a great deal. They soon discover whether or not a hotel is well managed, and when pleased are likely to be loyal in their patronage.

Most hotel keepers are obliged to make their profits during a certain season of the year; there are several months in which guests are comparatively scarce, yet it is not possible to cut down expenses to any extent; nearly as many servants are required for one hundred as for two hundred persons, and a manager cannot run any risk of being without servants when the busy season commences. So he must be content if he merely pays expenses during the dull season, and must depend upon the winter, or summer, as the case may be, for the realization of profits.

Every hotel should have rules for the conduct of its guests, and the manager should insist that they be observed. A house in which people do as they please is doomed to failure. It is always better to

send away an objectionable person than to lose a dozen or more who are likely to go if the other remains. Guests do not object to reasonable rules, for they recognize that these rules are made as much for their protection as for that of the manager.

Trifles are the rocks upon which a great many hotel men are wrecked. The comfort and convenience of guests are so dependent upon little things, small attentions, delicate courtesies, prompt and accurate service, that few managers possess the grasp of detail necessary to keep up the standard in all particulars. There is so much competition in large city hotels of high grade that the successful hotel man must be ever on the alert, never relaxing his vigilance, always watching for the little leaks which threaten to sink his ship.

In opening a new hotel, it is necessary to be very careful about the location. If it is to be a business man's house, it should be in the business district; if it is intended to appeal to ladies, it should be located not far from the shopping neighborhood and the places of amusement. Patrons sometimes go out of their way to stay at a hotel that has been long established and that enjoys a high reputation, but a new house will not thrive unless centrally located. A great deal of money is required to put a hotel upon a paying basis. I never heard of a great hotel that has earned money from the very beginning; the promoters usually spend hundreds of thousands of dollars before any profits are realized; yet a well-established hotel, economically conducted, is a valuable property. There are hundreds of men, most of whom started as bell-boys or clerks, who have become wealthy in the business.

THE CONTRACTOR AND BUILDER

THERE are several avenues to the control of a business of contracting and building. Many of our most successful contractors began as laborers in some one of the building trades. Others started in offices of contracting and building firms as office boys and clerks, and there acquired their first knowledge of the business features of contracting and building, and then, by inspecting work under way, and by reading, became familiar with the mechanical parts of the calling. Other contractors are graduates of technical schools and have had little or no experience in the business or trade details of the work. In most cases, the

technical school graduates have fathers or relatives in well-established businesses of contracting and building, and are thus able to step into positions of responsibility without undergoing the years of drudgery necessary on the part of those who are compelled, unaided, to forge their way to the front.

The business of contracting is divided into numerous specialties; for instance, there is the contracting mason, the contracting carpenter, plumber, decorator, electrician, and so on. In addition to these contractors, there is a large class of builders who contract for the entire structure, and sublet contracts to specialists. The builder must, of course, be a man of capital and commercial responsibility. He has generally reached his position as the result of careful work and steady progress in the mechanical field, usually extending over a period of many years. In the city, most of the builders have graduated from the trade of masonry, this being the most important special branch in the building of city houses. In the country, on the other hand, the builder in most cases was formerly a carpenter, the reason being that the woodwork in country buildings is the most essential feature of the work.

The business of building and contracting does not require for success any more than a common school education; in fact, some of the contractors who have established large businesses are very illiterate men, without sufficient scholastic knowledge to write a letter, yet they have strong common sense, good business ability, and a close familiarity with the building trades. They have had no difficulty in hiring young men and women, at comparatively small salaries, to supply their lack of educational proficiency. But learning is, of course, an advantage in any sphere of life, and the young man who is able to attend a trade-school acquires as much knowledge of the building trades in a year as the young mechanic can acquire in three years of practical work. The horizon of the former is broader than that of the latter, and on this account he is apt to be better able to build up and supervise a large building and contracting business.

The methods and customs in contract building have changed considerably in the last twenty-five, or even fifteen years. Competition is keener than formerly, and a contractor must have a larger capital. He must take contracts at lower sums of money and must therefore figure much closer upon the cost to himself. In the old days, when asked to give an estimate on a building, a contractor would say to himself: "This building is a good deal like the one I did last year for so and so, and I guess I can do this job for about the same price." This loose and slipshod guessing would soon put the builder and contractor of to-day upon the rocks. In making an estimate at the present time, he must know exactly how much lumber and how much stone and how much of other materials will be required for the building. He must be able to estimate

the exact cost of labor and of all of the great number and variety of accessories. An estimate is no longer a guess, it is a very careful mathematical computation. From this fact it will be seen that the contractor and builder must have a very accurate knowledge of material, labor, and the numerous other factors in the erection of a house. This knowledge can be acquired only by actual experience. Neither schools nor books will give it. A young man, therefore, cannot expect to begin as a contractor and builder. His best plan is to seek employment in the office of a well-established firm. Here, if he is bright and ambitious, he will be able to gain a great deal of information about the business of contracting and building. He will become a business man. Meanwhile, by reading, inspecting work and perhaps attending a trade-school, or by taking lessons through the medium of one of the corresponding schools, he will be able to combine with his business training the theoretical and practical knowledge of the building trades which is necessary for the equipment of the wholly competent contractor and builder.

It usually takes a long time for a man to get on his feet as a contractor and builder, but once he has established himself, he has a business that can be depended upon to yield him a good profit. There are fewer uncertainties and contingencies in building and contracting than in many other callings. The builder usually deals with men of means, and when work is finished he is more likely to receive his pay than is the case in other businesses; he is therefore able to steer clear of the rock which wrecks so many commercial enterprises, namely, an accumulation of bad debts.

Building and contracting contains but little of the speculative element. Of course, there is always the possibility of a strike that will render the builder unable to complete his work in the specified time. Much money has been lost in the past from this cause, but the builder of the present day almost always takes care that there is in his contract what is called a strike clause, releasing him from the time stipulation in case his employees are ordered out on strike.

On the whole, the business is a very good one. It is not so exalted as that of the architect, but, as a rule, it pays better. A young man of practical ability who makes up his mind to become a contractor and builder ought to be able to accomplish his purpose, and if he does he will have achieved independence, and, perhaps, will have acquired a fortune.

THE CITY CARPENTER AND THE COUNTRY CARPENTER

CARPENTRY of to-day might properly be classified as city, and country, carpentry. The tendency of the country carpenter is to grow broad in theories, while the city carpenter becomes a specialist, skilled in the use of fine tools and machines.

Twenty-five years ago when the construction of buildings was largely by hand, the framework was wood, and the girders and braces were measured, fitted, and placed, by hand. To-day, almost all of the pieces are manufactured in the mills; the only work that remains for the carpenter is to put the pieces together. Even this class of work has been superseded by structural iron. The real brain work and skill formerly demanded of the carpenter is supplied by the mill hands.

The revolution that the building trade has undergone, owing to the introduction of steel, has forced the carpenter into much narrower channels of work. Though such parts of a building as window sills and door casings are made in the factory, it is considered economy to employ the best workmen to place them in buildings. Of course, the men who devote themselves to this kind of work may have a general knowledge of carpentry, and may get, at the outset, higher wages than those engaged upon general work, but such work naturally precludes their branching out into broader fields.

The tendency of the country carpenter is to become a contractor, and an architect as well. He no longer confines himself to the building of houses on plans made by others. The sign, "John Smith, Architect," or "John Smith, Contractor & Builder" is now seen where simply "John Smith, Carpenter" used to hang. He is familiar with all kinds of work, but never becomes so skilful with tools as his city brother in trade. On the other hand, he may make more money, because of his many opportunities for going into business for himself, since a "start" in the country does not involve much capital, either in the fitting up of a shop or the obtaining of the material for a large contract. The fine artisan in the city is apt to become more or less a machine, while the rural workman learns something of estimating upon a job. It is a matter of fact that, while a great majority of the skilled workmen employed in the new buildings of the great cities are city born and bred, a still greater majority of the bosses and contractors of such buildings have learned the first part of their trade in the country.

It has been claimed by some that carpentry does not offer the inducements of a quarter of a century ago, but the fact that the trade schools are turning out many carpenters would seem to be a refutation of that theory. A disadvantage of the carpentry trade is that it cannot ordinarily be followed the year around. During the winter, little work is done on the buildings in the cities of the North; hence many thousands of good workmen are idle for a part of each year. This condition drives many from this trade into callings that afford a more certain and regular, if not a greater, stipend. This may be assigned as the reason why the ranks of this trade are not overcrowded, despite the large supply of new recruits furnished by the trade schools.

There is no doubt that the carpenter to-day is a better educated man than formerly. This is due chiefly to the trade schools, to the higher class of work now demanded, and to the general advancement of the status of the trade.

The boy who contemplates becoming a carpenter should have more or less of a mechanical "bent." He should first obtain just as good a school education as possible, and should especially apply himself to mathematics. A knowledge of geometry is essential, especially in stair-building, and if possessed of such knowledge he can easily outstrip competitors who are not so well equipped. After the lad has graduated from his village or grammar school he should, if possible, enter a trade school, where a complete knowledge of the use of tools may be acquired. In such schools the theory as well as the practice of carpentry is taught. Without such drilling, the young aspirant is severely handicapped. In trade schools are also taught the principles of architecture, which are invaluable to the builder. The course in the trade school is of about a year's duration. When graduated from the school, the young man enters upon a course of regular work in the employ of a contracting or boss carpenter, and soon, if he be diligent and ambitious, becomes a full-fledged journeyman carpenter, and later, perhaps, a contractor and builder.

THE DECLINE OF THE BLACKSMITH'S TRADE

A blacksmith was formerly a smith who worked in black metal or iron, as distinguished from the whitesmith, who worked in white metal or tin.—STANDARD DICTIONARY.

THE foregoing definition really casts little light upon the vocation of the blacksmith—the oldest, probably, of the constructive arts,—for the legend comes down to us from biblical times that at the completion of the temple, King Solomon gave a great feast to all who had been engaged in its erection, and as the story goes, disclosed to the artificers there assembled that they were all indebted to the blacksmith for the means to accomplish their several parts of the wonderful work. The smith it was who made the tools for the different craftsmen, and without him, it appears from the legend, they would have been nearly helpless.

Though ever an humble occupation, that of the blacksmith has yet been held in high esteem through all time, and the smith himself to-day, as in years gone by, is often a man of importance in his community. In rural districts, where he is seen at his best, he is often the recipient of such honors as the community is able to bestow, frequently being the justice of the peace. To the smith, more often than to any one else, are questions of moment referred, for he is considered to be, and usually is, a careful observer and a public-spirited citizen.

Of the qualities needed to make a successful blacksmith it is not easy to name the most essential. Shrewdness, carefulness, a general knowledge of mechanics, and an unlimited fund of patience, are prime requisites. While it is true that the country smith of to-day is not so very far removed from his brother of years ago, it is equally true that by reason of improved tools—many of them his own invention—he is enabled to accomplish much more in a given time, since all the improvements in tools and methods have had for their object the saving of labor. Where, for instance, fifty years ago a smith required hours to set the tires on a vehicle, he may to-day, by the use of the improved methods at his command, accomplish the same work in an almost incredibly short space of time. And in other particulars the gain has been equally great.

In some directions blacksmiths' work has within the last few years become specialized, as in the great shops of the more prominent commercial centers, where a smith, instead of having all sorts of smith work to do, has only a certain kind upon which he may be engaged from one year's end to the other. Two lines which may be mentioned are machine-smithing in the large machinery works, and tool-dressing in the mining or quarrying districts

THE PLUMBING TRADE

By *J. MADISON HEATHERTON*

Editor of the "Plumbers' Trade Journal"

IN THE United States at the present time it is estimated that fourteen thousand men are conducting the plumbing business. There are in the neighborhood of one hundred thousand journeymen plumbers and perhaps twenty-five thousand apprentices.

The present condition of the plumbing trade is not as desirable as most people seem to imagine. Apprentices have been turned out far too rapidly during the last fifteen to twenty years. This has become so thoroughly well known to the trade that measures have been agitated to counteract the evil, but there seems to be no remedy. It is a difficult matter to keep any one from learning a trade, yet there should be some plan devised to limit the number of apprentices in our trade.

A far better educated and well-informed grade of men than those who formerly conducted the business are now engaged in it. This is owing principally to organizations, trade papers, and trade-schools. Referring to organizations, it is a fact that the master-plumbers stand to-day as the greatest organized body of master-mechanics in the world, nearly ten thousand being members of a national association.

Not many years ago, before the present high-grade patented sanitary specialties were on the market, the plumber was forced to make all his own fixtures, with the exception of a very few articles. To-day this is changed. Solder is furnished, the plumbing fixtures are obtained for installation, and the plumbers' skill consists only in outlining the work, following the specifications, and setting up the various fixtures. It has been a prevalent idea in the public mind that the plumber has almost invariably overcharged for his work. This is absolutely untrue. We may take the plumbers as a class to-day and assert that their system of billing is generally on a carefully estimated percentage of profit over and above the cost price of the various goods which they use. Then so much per day is charged for the journeyman and the helper.

There are two classes of master-plumbers: the jobbing master-plumber and the contracting master-plumber. The jobbing master-plumber attends to nothing but overhauling old work and such repairing as he may be able to obtain. A great many of the jobbing master-plumbers handle estate work, and perhaps are paid so much a year by the various estates that they care for, or so much a day for the time of their journeymen.

The contracting master-plumber bids on all sorts of new work. Many master-plumbers start in to compete with older contracting plumbers, just after graduating from the position of journeyman to that of boss. These young master-plumbers are good mechanics, but poor business men. In their efforts to secure work, they figure at almost the cost price of the material which they are to furnish. They lose sight of their own time, their store rent, and various other sundries, and consequently, when the work is finished, their books show a loss instead of a profit. Then, again, they are subject to losses through builders failing to pay at proper times, estates failing, etc. Through the constant coming into the work of the trade by inexperienced master-plumbers, the conditions are bad, and the outlook not at all bright. For a young man, the trade of plumbing should possess no attractions until the conditions we have spoken of are changed. As I stated at the start, the fault lies with the fact that there are too many apprentices, who have become journeymen plumbers and eventually master-plumbers, thus bringing about a tremendous competition.

The young man who wishes to become a plumber should, first of all, possess a good school education, especially a knowledge of bookkeeping. He should then be apprenticed to some good plumbing establishment for a period of three to five years, and should work at the trade all of this time. He should, in addition, study the theoretical portion of the trade, gleaning what facts he can from such literature as can be secured. A certain number of years as journeyman plumber, will fit him to become a master-plumber. A course at a trade-school will do an apprentice good, for here he is bound to secure much theoretical information, and a grasp of the principles of the finer workmanship of the trade.

To begin as a master-plumber, the amount of capital required varies in accordance with the section of the country in which one desires to engage in business. In country towns, most plumbing establishments carry quite a stock of goods necessary for their plumbing work, in addition to house furnishing goods. The necessity for their carrying stock lies in the fact that they may be some miles from supply houses. It can thus be seen that the capital of a country master-plumber should be greater than that needed by a journeyman who contemplates starting in business in a large city, where he is in close touch with supply houses, and simply needs a basis of operation from which to order his goods. But I believe that no journeyman should start in business without a bank account of from eight hundred to a thousand dollars.

HOW TO SUCCEED AS A TAILOR

By JAMES F. KENNEDY

THE young man who would succeed as a tailor, must, as in anything else, possess ability, energy, and ambition. If he begins as a journeyman workman, he must set himself the task of becoming the best workman in the shop, for that is the surest way of gaining promotion. When he is promoted and put in charge of other men, he must acquire tact and adaptability, and learn how to get the best work out of men with the least possible friction. While keeping clearly in view his purpose of some day becoming his own master, he should give the man in whose employ he is, the best service of which he is capable. This training, will later mean dollars in his own pocket. That man will never succeed who is always fearful of doing more work than he is paid for.

The tailor starting business for himself will inevitably discover that to attain success requires more than the ability to make well-fitting garments. Equally important is the knowledge of human nature, which enables him to divine what particular material and style will give each customer most satisfaction. Tastes differ, and he must learn how to make allowance for these differences. With clothing, many men have much clearer ideas as to what they don't like than as to what they do like, and the successful tailor must know how to infer the latter from the former. I study a customer's physiognomy more closely than I do his anatomy. To fit him is a comparatively easy matter. To fit him and at the same time satisfy him is much more difficult. You may know very well what will look best on him, but you must exercise great tact in urging your own views, otherwise a customer may be lost instead of gained. The tailor comes frequently into contact with human vanity, which is a very uncertain quantity, and, like dynamite, must be handled carefully.

If he aims at becoming a fashionable tailor, his workmanship throughout must be of superlative excellence. Men of wealth and fashion are generous but exacting patrons. They pay for the best, and expect to get it. Of course, the tailor who seeks to enter this field finds it in possession of men whose reputation is already made. He can gain recognition only by doing as good, or better, work than theirs, even before he has acquired the prestige which will enable him to charge their prices.

When he has acquired a reputation by the excellence of his work, he must continue that excellence or his reputation will speedily decline. There is no such thing for a successful tailor as resting on his laurels. There is no Prince of Wales in this country, whose patronage alone suffices to bestow prestige.

It goes without saying that the fashionable tailor must keep abreast of the fashions. He must, in fact, do a little more than that. He must be able, in a measure, to anticipate their changes. The customer who is satisfied will advertise and extend the tailor's business, and the tailor will recognize that to give perfect satisfaction his work and goods must be always as they are represented.

UPHOLSTERING AND INTERIOR DECORATING

By CHANDLER R. CLIFFORD

WHAT are the requisites of a successful upholsterer—or, as he is so frequently called nowadays, the interior decorator? The upholsterer in a factory town may succeed fully and completely, so long as he is only expected to mend chairs, cover lounges, and hang shades; but such a man would starve to death in a fashionable residence suburb, for here he is something more than a mere artisan; he is an interior decorator.

The quality of good taste must be innate,—like the musical sense in the musician,—and it must also be cultivated by study. A technical work-room knowledge and a knowledge of period-design are necessary, for the woman who is having her boudoir done over in the Pompadour style expects her upholsterer, or decorator, to know that Madame Pompadour was the favorite of Louis XV., and that the decorations of her time were characterized by her inordinate extravagance.

It can be readily understood that in the making of beautiful homes an art education is necessary. In these days, home-makers are well informed in the matter of decorative styles. They come back from the Orient, for example, impressed with all they have seen. They may not know the difference between the Parthian or Lausanian, but they know Persian in the abstract. They understand that the Roman was derived from the Greek, and that the Byzantine was an evolution of the Roman. Possibly their Spanish and Moorish are a little mixed, and they may not know exactly why the Elizabethan is so much like the Dutch, so they

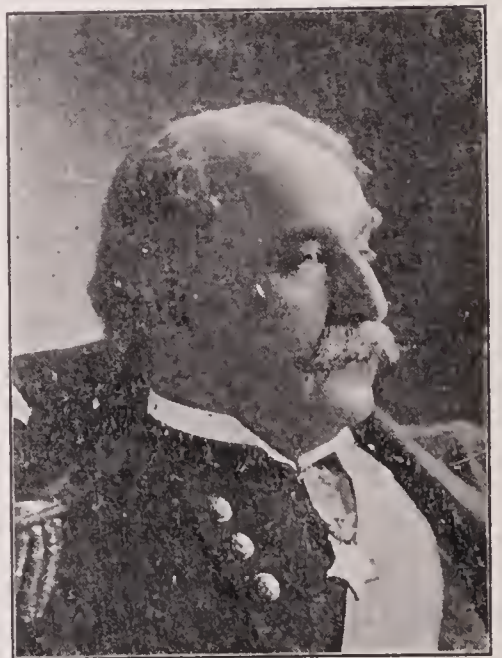
rely upon the decorator for historical correctness, as well as for beauty of coloring and material. In home-making, art finds high expression, since the home environment forms character. Albert Durer, Fra Angelico, Palladio, Raphael, Michelangelo, Le Brun, Boucher, and Watteau have done some of their best work in mural painting. Among the members of the Mural Decorators' Club, of New York, are most of the celebrated American artists.

In Greece, Rome, Spain, Flanders, the development of the decorative arts went hand in hand with general progress. And when, after centuries of semi-barbarism, the nations awoke, the first sign of the awakening was the revival of the decorative arts. All nations have had these periods of decorative enthusiasm. They come at the time of the country's highest intelligence and greatest prosperity. This enthusiasm is awakening now in America. The successful upholstery-decorator of the future will be the man who is skilled in his art, and reinforced by the knowledge of what the people want, and how best to provide it from the wealth of historical suggestion.

THE UNITED STATES SOLDIER AND HIS CAREER

By **LIEUTENANT-GENERAL NELSON A. MILES**
Of the United States Army

THE opportunities for young Americans in the regular army have been considerably broadened by the events of the last few years. The Spanish War was fought to some extent with the aid of volunteers, hastily enlisted, or taken from the state militia, but the responsibilities which the war imposed upon the country made a larger regular army a continuing necessity for the future. The volunteers who were enlisted for service in the Philippines have finally been mustered out, and the regular army will hereafter undoubtedly be at least three times as large as before the war with Spain. The Army Reorganization Act, passed at the beginning of 1901, provided for a regular army of one hundred thousand men, if required. It was thought by some at the time that this force would be necessary. The success achieved in restoring order, however, has resulted in limiting the regular army, for the present, to about seventy-six thousand



men. But the President has full authority to increase the number to one hundred thousand.

The increase in the size of the army, and the new responsibilities which the United States has assumed in the Orient, are likely to give a heightened prestige to the army as a profession. The soldier's career has always been recognized as one of the most honorable, but many years of peace, with a military establishment insignificant in size, kept the uniform from occupying a prominent position in the minds of the people. The probability of active service, due to the unsettled conditions in our new possessions, indicates that there will be more frequent changes in the service than formerly, and greater opportunities for distinction. More than this, the reorganization law which has been passed by Congress adds considerably to the number of the higher places. It provides more officers in proportion to the number of regiments than were called for under the old organization.

The life of an officer of the army has many advantages and some charms, but it also has serious drawbacks. A discussion of the subject would be incomplete which did not refer to the disadvantages as well as the advantages of military life.

Our service is quite different from that of other nations. For instance, in the British service it is not difficult for a well-bred, intelligent, ambitious young man to enter the military service and obtain a commission. The course at Sandhurst is two years, whereas at West Point it is four years. The Sandhurst course, while not so rigid in abstruse mathematics as ours, appears to develop admirably the manly qualities of the corps. I was very favorably impressed with the appearance of the latter on a visit to Sandhurst with Lord Wolseley. The institution is located in one of the most charming spots in England. The buildings, while not splendid, are solid, substantial, and healthful. The quarters for the young men are ample, with an atmosphere that I should think would promote clear brains and strong physiques. The walls are adorned with pictures of the heroic achievements of the British army and with portraits of Wellington, Marlborough, Wolfe, Clive, and other leading British soldiers. These decorations have, of course, a strong inspirational value. The enlistments in the British army are wholly voluntary, and the men are imbued with great pride and spirit. From drummer boys to field-m Marshals, they are proud to wear the uniform of the British army and to march to the music of the grenadiers.

Although the American army has been developed on different lines, it is, perhaps, more efficient, and the incidents of its origin and growth are full of interest. Upon the organization of the Government under the Constitution, the army consisted of eight companies of infantry and four batteries of artillery. Two years later, the force of infantry was

increased to two regiments, consisting of twelve companies each. General officers and subordinate staffs were then provided for. It was not until 1796 that an adjutant-general was placed on duty at the seat of government, that officer being detailed from the line. The office of adjutant-general of the army was not regularly established until some fifteen years later. It was created by Act of Congress approved March 3, 1813. After the creation of that bureau, the number of staff bureaus gradually increased, until we now have, in addition to the Adjutant-general's Department, the Inspector-general's Corps, the Bureau of Military Justice, the Signal Office, the Quartermaster's Department, the Subsistence Department, the Medical Department, the Pay Department, the Ordnance Department, and the Corps of Engineers.

When coördinated under one authoritative head, these staff departments form an organization possessing great efficiency. While it should be the constant endeavor to secure the maximum of strength and efficiency in an army organization, the latter may become so strong as to endanger the supremacy of the civil government. In this case the strength of the army should be reduced simply by decreasing the number of soldiers, not by distributing and paralyzing their power. An army may be limited in numbers, but in organization and efficiency it should be perfect.

Among officers who have won glory for themselves and for our country through their service in the army, the first names that occur to every American are those of Washington, Greene, Wayne, Jackson, Harrison, Brown, McComb, Scott, Taylor, McClellan, Halleck, Grant, Sherman, Meade, Hancock, Sheridan, Thomas, McPherson, Sedgwick, Sumner, Kearney, Fremont, Lyon, Canby, and others.

It is noteworthy that the reputations of these great soldiers were gained through long as well as brilliant service. In no case was fame the result of any single deed, however heroic. In fact, soldiers have performed single acts of gallantry surpassing, perhaps, any individual deed of our greatest military leaders. In the records of the army are many obscure examples of heroic conduct. A single instance will serve to illustrate:—

In Ohio was a poor stockade called Fort Stephenson. Its armament consisted of one cannon, and its garrison was composed of one hundred and sixty men, commanded by Major George Croghan, a young officer of twenty-two who was born near Louisville in 1791 and came of fighting stock, his father having been an officer in the Continental army. Graduating from William and Mary College in 1810, he entered the army, was in the battle of Tippecanoe in 1811, and a year later was made captain in the Seventeenth Infantry. With this rank he served under Harrison, in 1812 and 1813, and so distinguished himself in a sortie from Fort Meigs.

that he was appointed aid-de-camp, with the rank of major, and assigned to the defense of Fort Stephenson. Lest Tecumseh and the Indians, who were coming across the country from Fort Meigs, should make a flank attack, Harrison had authorized Croghan to burn the fort and retreat. This he did not do. "We are determined to hold this place," said he, "and, by Heaven, we will!" Harrison thereupon dispatched an officer to relieve him. But Croghan went to headquarters, carried his point, and when, on August 1, the English commander summoned him to surrender, the young major sent back a stout defiance. The next day the bombardment began, and toward afternoon an assault was ordered. The English soldiers, in three columns of one hundred and twenty men each, were to attack on three sides. The Indians were to storm the fort; but as the latter came out of the woods a steady and well-directed fire from the fort drove them back. The British troops, thus left to fight alone, came on bravely to the very gates, made a desperate assault lasting two hours, and then retreated, with all the officers and one-fifth of the men killed, wounded, or missing. A wave of tremendous enthusiasm rolled over the country as the result of this victory; but who to-day knows anything of the personality of Major Croghan?

The army during most of its history has been on the frontier,—in the vanguard of civilization. It has penetrated the forests, crossed the plains, and scaled the mountains, carrying the flag of our country in advance of the hardy pioneers, the miners, the hunters, and the home-builders, who have spread civilization over the vast continent of America. In our great wars, the army's fortitude, patriotism, and sacrifice shine brightly on the pages of history.

Those following a military career are subjected to many privations and hardships, yet every true American is proud to be in the service of the enlightened people of the United States. I regard the boy who receives an appointment to West Point as very fortunate. The rigid discipline and the physical training make him a fine specimen of man, both in mind and body. High ideals of honor and loyalty are planted in his bosom. I believe that there is no manufactory of manhood in the world so effective in turning out a highly finished product as is West Point. But the raw material must be good, or it will not be received at the Military Academy. The boy who hopes to enter must be perfectly sound physically and free from all blemish; he must, moreover, be able to show that he has a good and well-informed mind. He must have a thorough understanding of arithmetic, be able to read with intelligence, and write and spell with accuracy. The test in arithmetic is particularly severe, and unless the boy has a good mathematical mind he will not be able to pass the entrance examinations, or will fail to hold his own with his class and will be dropped. He must also have considerable knowl-

edge of the other common branches of an English education. The pay of a cadet is \$450 a year. He is not permitted to receive money or any other supplies from his parents or friends without the sanction of the superintendent. This rule is rigidly enforced, for the purpose of eliminating among the cadets all distinction arising from the varying social positions and degrees of prosperity of their parents. The course at the academy is four years.

When the cadet graduates, he is assigned to either the infantry, the artillery, the cavalry, or the engineering corps. The branch of the service he enters is determined by his standing in his class upon graduation. Those who are at the head have their choice and usually select the engineering corps. The infantry is regarded as the least desirable branch. The young graduate is a second lieutenant, with pay of \$1,200 a year at the beginning. He is very likely to be assigned to some remote garrison post, where life in time of peace is one of monotony. Unless a man has great enthusiasm for the profession, or possesses resources within himself, he is in danger of sinking into a state of mental apathy, or of becoming something of a martinet. Many officers resign to enter civil life, and find, as engineers or professors, more freedom and larger incomes than can be enjoyed in the army. Yet the life is full of compensations. The West Point graduate has a high social position, and need have no worry over financial matters or the solution of the bread and butter problem. In time of war he is, of course, supreme, and wins from his fellow-men a degree of gratitude and adulation that never comes to followers of the professions of peace.

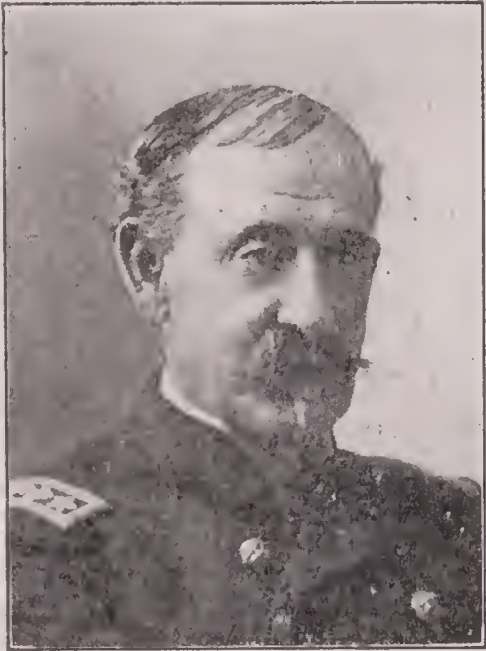
Throughout its history, the army has maintained a high standard of morals and integrity, though at times there have been influences which would seem to dim and mar the luster of its service. Devotion to the welfare of his country is as sacred to the true soldier as life itself. Undoubtedly, the army received its greatest inspiration from the high character of Washington himself. Its achievements will live in history as long as noble deeds shall be honored and revered. Its purpose has been to maintain the institutions established by the Fathers, to repel the onslaughts of savage ferocity, to give protection to the weak and innocent, to guard the well-being of the people of the United States in every quarter of our vast territory and in foreign lands.

Military life is one of constant labor, study, and rigid and faithful devotion to duty. Our soldiers have never failed in their duty. I am confident that they never will, and that the present high standard of honor and loyalty will be always maintained.

A CAREER IN THE NAVY

By WINFIELD SCOTT SCHLEY

Rear-Admiral United States Navy



I SUPPOSE that nine out of every ten American boys would like to go into the army or the navy. This speaks well for the boys. It means that they have a wholesome spirit, the American spirit. And as a matter of fact the training at Annapolis—it is the same at West Point—is a fine thing for a boy who has good stuff in him. It strengthens and solidifies his ideas of honor. It makes a gentleman of him,—I mean a gentleman in the true sense of that fine but somewhat abused word. Over in London, a few years ago, a prize was offered for the best definition of a gentleman, and the one for which the prize was awarded is this: “A gentleman is a knight whose armor is honor and whose lance is courtesy.”

This may sound like a somewhat fanciful definition, but it sums up the matter pretty well, I think. The young man who starts out with an armor of honor and a lance of courtesy is well equipped for life's battles. It may be that he will not win the success which comes from trampling on others, but he does not care for that kind of success.

In addition to his high ideal of honor, the Annapolis cadet, of course, acquires a great deal of valuable information about guns and tactics and methods in general of subduing the enemy; but he learns something even more important than this,—he learns how to subdue himself. Winning a naval battle is often easier than winning a battle against one's own tendencies and inclinations, and as important for the latter as for the former is strict training and discipline in the period of youth, when lessons well learned are least likely to be forgotten, and character is forming for good or ill. This is why I regard the boy as fortunate who is able to go to the Naval Academy at Annapolis.

The great majority of boys cannot go, and it is not difficult to find consolation for them. The naval career has, besides its advantages and attractions, some serious drawbacks. The boy or young man who thinks that he could be happy if he could enter the navy, should remember that the naval officer must be absent from his country, his home, his wife, his children, many of his friends,—in short, from almost everything he holds dear,—for nearly half of the long years of his active service. Yes, of

course, there is the home-coming, but when one spends two or three years sailing the seas or lying at anchor in foreign ports, the anticipation of home-coming is rather too long drawn out.

In fact, the naval officer has no permanent home. The care and rearing of his children devolves almost entirely upon their mother. This is hard on her, and is a responsibility in which he would very much like to have his share. If he has boys, he finds, when they grow up, that he cannot give them as good a start in the world as he would like to, because he has so few shore connections. The navy is, of course, no place for the young man who is ambitious to become rich. It gives one nothing more than a comfortable living. In times of peace it does not matter how restless or energetic or ambitious he may be as far as advancement is concerned. He must wait for promotion, and usually must wait long. It is true that in war times the conditions are very different, but war does not come every year, nor every decade, and I think that as time passes it will become of rarer occurrence. So the naval officer may never get an opportunity to prove to himself and to others that heroism and other great qualities have been slumbering in his bosom. Every cadet who is graduated from Annapolis dreams of glory, and I feel sure that there is not one who would hesitate an instant in the face of duty, however perilous. But to only a few does the great chance come. Another thing I want to say is that I am unalterably in favor of giving the men of the navy every opportunity for gaining commissions. Upon this subject I recorded my opinions in an official report published in 1886 or 1887, while chief of the bureau of equipment. The man behind the gun in the navy ought to have the same privilege as his comrade in the army to gain a commission. I am in favor of granting to him, after gaining his promotion, the opportunity of a course of, say, two years at the academy, that he may acquire sufficient knowledge of mathematics and other sciences not to be at a disadvantage with the graduate of the naval academy in matters of professional technic.

I do not pretend to discuss the details of the plan that should be adopted; these may be left safely to the authorities; but I have thought, for many years, that the men of the navy who are so intelligent, so capable, and so true, ought to have the same chance of reaching its highest grades as would be open to them in business or professional life in civil employments on shore. A man or a boy who undertakes a naval career ought to be able, through industry, meritorious performance of duty, and skill in his profession, to reach a commission, and, by application to his duties, good conduct, sobriety, or heroic performance of service, to be advanced, afterward, from grade to grade to the highest.

It is possible for men in each of several European navies to attain commissions when their actions in battle enhance the national prestige,

or add to the nation's grandeur. Indeed, the most coveted of England's decorations, the Victoria Cross, is found alike on the breasts of the sailor and the admiral. In Germany, the Iron Cross is worn as worthily by the sailor or the soldier as by the admiral or the general.

I have a great fondness and admiration for the men of our navy, after a service with them extending now well on to forty-five years. They are always courageous; and, no matter how perilous the service to be done, they are always ready to undertake it. In battle they are valiant; but, the struggle over, they are as gentle as women to those who were their foes. Such men would honor commissions, as they have honored their country in every war and on every sea; and I think that, when these commissions have been won, we ought, in all fairness, to give them the chance of that higher training which will place them, in professional equipment, on as high ground as the graduate of Annapolis enjoys. I feel sure that, under such circumstances, the men of our navy would sustain themselves with credit to the service and to the country.

Once establish the fact that the way is open from the forecandle to the quarter-deck, and the details of promotion will soon adjust themselves; and I feel sure that the men of the navy will not be found wanting in ability to reach the highest places, by improving every opportunity for distinction. I think, further, that the result would be good in bringing the navy closer to the people of our country. No man who enters the navy should, for that reason, lose any of the chances of rising that would be his in civil employment. This is more in harmony with the true spirit of our institutions, which offer to every man opportunities for reaching any position in our land through talent, industry, and worthiness.

While, as I have said, the highest places in the navy should be opened to all Americans of good character and ability, yet the course at the Naval Academy at Annapolis gives the young man much instruction and knowledge that could not be obtained in years of experience and study by himself. A young man who receives an appointment to Annapolis has a well-defined and very honorable career provided for him. His position is in many respects an enviable one. As is well known, the appointments to Annapolis are made by the President and by Congressmen, who usually determine the fitness of candidates by holding competitive examinations. The boy who, after passing a most rigid physical examination, gains the highest marks in the mental test, receives the appointment; he must then pass an entrance examination before he is made a cadet.

The Annapolis course covers a period of six years, four at the academy and two at sea. At the expiration of the sea service, the cadet returns to the academy for final graduation. The candidate must at the

time of examination for admission be between the ages of fifteen and twenty, and well equipped mentally and physically. He cannot be undersized, or in any way deformed or afflicted with any disease or infirmity which might render him unfit for military service. He must be unmarried and be able to pass an examination in reading, writing, spelling, arithmetic, geography, English grammar, history, particularly that of our own country, algebra through quadratic equations, and plain geometry. Candidates who have passed the physical and mental examinations receive appointment as cadets and become students of the academy. Each cadet is obliged to sign articles binding himself to serve in the United States Navy for eight years, including the time at the Naval Academy. The cadet receives a salary of \$500 a year beginning at the time of his admission.

THE POLICEMAN

By GEORGE W. McCLUSKY

Former Chief of the Detective Bureau of the New York Police Department

LIKE the soldier, the policeman must be able-bodied, intelligent, brave, and calm, but, above all, he must be a man of good judgment. He is invested with what might be called "unwritten orders," and has much discretionary power. Being an essential feature of municipal life, it is the policy of every city government in this country to attract good men to its police service. Salaries are adequate, and there is the prospect of a pension at the end of a certain number of years, usually twenty-five or thirty, of active service.

No man who lacks courage and steady nerves need hope for success in the police service. The policeman's courage must be the kind that prompts immediate action; his calmness of temperament must be sufficient to always restrain him from undue precipitancy. In some quarters of the great cities, particularly in those parts where excitable foreigners swarm, the policeman is guide, philosopher, and friend to all. He protects the weak and admonishes the strong, and so wins gratitude, respect, and hatred. All kinds of disputes are referred to the policeman to settle, and he does settle many with a judicial wisdom, directness, and simplicity that would do credit to men who sit upon the bench. The policeman comes in contact with the most varied types of humanity. Either in or out of uniform, he is a marked man. He is always on duty—always a policeman. It is unnecessary to go into details of the policeman's daily life. Many elements of danger lurk in his path. He

must fight and conquer desperate characters; often, single-handed, he attacks a gang of men as merciless as wolves in winter, men who have no appreciation of the courage of a foe. Unfortunate and helpless creatures fall under his care, and stray waifs he treats with the tenderness of a mother.

A brief survey of the police department of New York, its opportunities and requirements, may be instructive, and, as almost all of the police departments of the country are conducted on similar lines, it will serve as a general guide to those who contemplate entering the service. Each municipality fixes, of course, its own salaries and pensions. A man desiring to become a policeman in New York, must be appointed according to law, under civil service regulations, between the ages of twenty-one and thirty. At the age of sixty-five he must retire from service; but, after having served twenty-five years and having attained the age of fifty-five, he is allowed to retire on a pension equal to one-half of his pay at the time of retirement. The policeman's pay at the beginning is eight hundred dollars a year. This amount is increased at regular intervals during a period of five years, until it reaches fourteen hundred dollars, which is the maximum pay of the ordinary patrolman.

The applicant for a position as a policeman must first have been a citizen of the United States for one year and must be able to read and write the English language understandingly. He must be at least five feet eight inches in height; must have a chest measurement of at least thirty-four and a half inches; and must weigh not less than one hundred and forty pounds without clothing, and be under thirty years of age. The first test to which he is subjected is as to his mental capacity; then he is put through a test of muscular strength, and lastly, the Board of Police Surgeons pass upon his general physical qualifications. All of these examinations are rigid. If the candidate be successful in passing them, he is entered in the school of instruction, which is in charge of a sergeant of police. He there learns the rules of the service and also the manual of arms of the United States Army. He is then appointed on probation for three months and must "break in" with a regular policeman at night, wearing citizen's clothes. At the end of the probation period he is again examined by the doctors, and if he passes, and no complaint has been lodged against him, he begins regular routine duty.

During the policeman's first few months of service, dangers much more subtle than those I have described threaten him. Many persons are attracted by his brass buttons, and these he must avoid religiously if he would not precipitate his own downfall. The over-friendly saloonman, it is not wise to know too well. Also innumerable flatterers, who have selfish interests to promote, seek by cajoling him to create within the green policeman an undue sense of his own consequence. It

is therefore necessary for him to steer a discreet middle-course. It is almost superfluous to say that drink is the policeman's greatest menace.

The young policeman who tempers ambition with discretion, stands a better chance of promotion than many who are overzealous. It is not the policeman's duty to fill the station-house with prisoners so much as to keep order on his "beat." Many policemen have won promotion for bravery in life saving.

When the policeman is advanced, he becomes a roundsman, at a salary of \$1,500 a year. He goes on patrol with the men, and is responsible for their conduct, reporting to the sergeant. The next step in the promotion of a policeman is to the place of sergeant. In this position he receives \$2,000 a year, and is responsible for the entire precinct during absence of the captain. Much of his work is clerical, but, in case of fire, he turns out with the men and has charge of those of his precinct. He is also in command at the station-house when the captain is away. A police captaincy is a position of considerable importance. The salary is \$2,750 per year. The captain is responsible to his superiors for the condition of the precinct in his charge. He is held responsible for the abatement of all nuisances and the general conduct of the citizens of his precinct. The next grade is that of the inspectors, who receive \$3,000 a year, and each is responsible for several precincts.

The detective branch of the Police Department involves the exercise of more sagacity than is required of the ordinary patrolman. The detective must be able to think and act quickly, to seize an opportunity. The truth of the old saying that "Conscience makes cowards of us all" is the detective's best aid. Ninety-nine men out of a hundred are more honest than dishonest. They are at home in the legitimate walks of life, and only startled strangers when they penetrate the realm of crime. To hunt such men is no more difficult than to run down an animal in a strange wood.

CIVIL ENGINEERING AND ITS OPPORTUNITIES

WILLIAM BARCLAY PARSONS, chief engineer of the Rapid Transit Commission, of New York, speaks with authority on all matters pertaining to his profession. He says: "Civil engineering is one of the most progressive of professions, offering at the present time greater opportunities to young men than ever before. Especially is this true in our own country. The American engineer, unhampered by tradition and obliged to satisfy the demands of unusual circumstances,

has introduced into every branch of the profession new methods, marked by a rigorous application of scientific principles, simplicity of detail, and great practicability.

"Railroads still offer the widest field for the younger engineer. In the United States every year, several thousand miles of track are constructed, in addition to the double tracking of single-track roads and the reconstruction of lines to bring them up to the modern standard of efficiency. The custom of consigning the maintenance of railway property to engineers is rapidly extending among railroad managers. On one of the great trunk lines the rule of placing educated engineers in responsible positions has been carried to such an extent that for appointment to any office of trust except in the traffic department, the applicant must be an engineer. The wisdom of this course is being appreciated more and more by other companies, who are applying accurate and scientific methods to the maintenance of their properties, and so opening many opportunities to young engineers.

"The prospect for the young man in bridge building is not so bright. The old practice, still in vogue in Europe, of having bridge designs furnished by individual engineers, has been almost entirely abandoned in this country, in favor of letting bridge companies or manufacturers submit their own plans, subject to such conditions and specifications as the bridge buyer imposes. The bridge engineer of to-day, therefore, is almost invariably a manufacturer, and the young engineer who desires to follow this branch with success must connect himself with one of the bridge companies, and, in proportion to his ambition, must be possessed of commercial ability and, if possible, of financial backing. The principles of bridge designing and construction are an essential part of the knowledge of almost every class of engineers, and especially to those who follow railroading, where, by necessity, ample opportunities are afforded for the prosecution of this most interesting of studies.

"Engineers a hundred years ago were largely occupied in canal construction, but the development of railways has put an end to the building of canals in the original way, and, in some localities, has even led to their abandonment. The canal of the future will be constructed on a very much larger scale than the canal of the past. It will be of great size, capable of floating not merely the typical canal-boat, but the full-sized ship of commerce. It will be an artificial river.

"The problems of harbor and river improvements are well worthy of the consideration of engineers. In this country, where large areas lying remote from the coast produce great quantities of wheat and other staples which do not demand rapid transportation by rail through long distances, a more perfect development of water carriage is very important. Fortunately, our great inland seas and large rivers already present the

natural foundations for the system. At present, their care and improvement are vested entirely in the corps of engineers of the United States Army, who are inclined to devote themselves to the construction of new fortifications and coast defenses and leave the improvement of our water ways to civilians. The study, then, of harbors and rivers, and the best means of rendering them most serviceable, offers a profitable field to the civil engineer.

“Another branch of engineering which is steadily widening its scope of utility and need is sanitation. As the towns multiply and grow into cities, the disposal of all matter included in the term sewage becomes a great question, increasing in seriousness as the locality is removed from free tide-water, or is prohibited from emptying its drainage into flowing streams. For all such cities there must be devised a plan of sewage, the details of which will largely depend upon the natural or artificial features of the location in question. The sanitary engineer in this country is already recognized as a necessity, and his importance will be still more deeply appreciated in the future. The ability to furnish our large cities with an abundant supply of pure water is a question equally as important as that of sewage disposal, and as our cities increase in number and size, and the possible sources of supply grow correspondingly fewer, there will come a greater demand for capable engineers.

“In addition to the openings offered in the United States, the more extensive development of Central and South America and the Orient, now fairly under way, will cause a large demand for engineering work, particularly in the specialties above mentioned, and in these regions the American engineer, with his more direct, efficient, and less expensive methods, will undoubtedly find many opportunities.

“As to the natural qualities of character essential to the engineer, it must be borne in mind that the life he is obliged to lead is far from easy, and is often full of hardship. Except for a few, a roving life, or one subject to many changes, will be the rule. The engineer, therefore, must have a genuine love for his profession, and so be willing to sacrifice much for it, and to forego many of the luxuries of life. He should be broad and even daring in his views, yet conservative in their application. He must be possessed of executive ability and tact, so as to be able to cope with and control men of all ranks, for with such the engineer has to deal. It is not necessary that the engineer should have an aptitude for business, as such matters are usually intrusted to those especially fitted for it; but when a man combines the skill of the engineer with ability for commercial management, he may make large sums of money by applying the profession of engineering to contracting.

“Finally, we come to the question as to the preliminary education of the engineer. It cannot be said that a technical education at one of our

scientific schools is an absolute necessity, in face of the fact that many of our ablest engineers have achieved success without the advantage of that training, but such a course is undoubtedly of immense value. It is not well, however, to enter a scientific course until an age has been reached when the student is able to fully appreciate the advantages offered, and to work seriously with the earnest feeling that he is now taking preliminary steps in his life's work. It will be to his advantage, therefore, to obtain first a liberal education at a college of high standing, and then to enter one of the prominent engineering schools. Such a course usually covers four years. When the student has graduated, he must not think himself an able civil engineer; such he will become only after he has acquired experience and can effectively apply his knowledge.

"The young engineer must have a thorough understanding of algebra, geometry, and trigonometry, and a familiarity with higher mathematics as far as and including calculus. Mathematics of a more complex nature than this is rarely used by an engineer. Because the engineer is constantly employed in making computations, it is a mistake to suppose that he must necessarily be a great mathematician. There are those who claim, and with reason, that the study of this subject beyond the limits outlined above is rather a detriment, as tending to cause the mind to become engrossed in the minute details of an exact science, and thereby placing a restraint upon that broad freedom of thought necessary to grasp the natural demands, necessities, or possibilities of a location, and hampering the conception of bold plans and the fertility of resource essential to the successful accomplishment of enterprises in the face of harassing difficulties.

"The engineer must also have a complete knowledge of the mechanics of solids and fluids, both theoretical and applied, and a perfect understanding of the general laws of physics as relating to heat, light, electricity, sound, and the general properties of solids and fluids. He must be familiar with the principles of geology and chemistry, especially relating to the manufacture of the common metals, and have a knowledge of hydraulics and the general features of machinery. It is to be understood, of course, that he must be capable of the practical application of these studies in mechanical drawing, surveying, testing the strength of materials, calculating strains, etc. At the best scientific schools as much time as possible, during both vacations and terms, is devoted to practical operations in the field, such, for example, as locating an imaginary railroad, or making surveys for water-works. Such practice is of great value to the student. Both before and after becoming an engineer, he will derive much profit from a well-kept notebook, in which he jots down such facts as are constantly coming to his notice, remem-

bering that information and experience are to the engineer what capital is to the merchant.

"The American engineer is, first of all, an advance agent of civilization. Already he is building railroads in Cuba and Porto Rico, and planning tasks in the Philippines, while in China, India, and Africa he is exerting a potential influence. One or two achievements may be cited to prove his claims to leadership. Two years ago the British government invited proposals for the building of a railway viaduct across the Gotkeik gorge, a deep rift in the Shan Hills of Burmah, eighty miles east of Mandalay. When the proposals were opened it was found that the Pennsylvania Steel Company stood ready to do the work in a shorter time and for less money than any of the English builders, and it was awarded the contract. The steel for the proposed viaduct was forged and shaped in Steelton, and then shipped to Rangoon by way of New York, whence it was shipped one hundred and twenty miles inland to the intended site. With the first consignment of material, went a gang of picked workmen, with Engineer John C. Turk at their head, and a giant traveling crane capable of lifting a girder weighing twenty-five tons. The erection of the viaduct was begun on the first day of December, 1899, and with this crane, especially designed for the task in hand, the towers were put in place, the colossal steel traveler, as fast as one span was completed, being pushed along to the next, and with its overhang picking up from the ground below the parts needed for another section of the work. Floods, a faulty transport service, and a capricious climate greatly hampered operations at the outset, but American ingenuity proved superior to all obstacles, and October 16, 1900, saw the last part in place, with nearly two months to spare, and without loss of life or serious accident.

"Engineer Turk and his associates, in returning from India, passed on the way another band of American workmen bound for that country, to begin one of the most important electrical undertakings of the period. An unusual and significant story lies behind this second invasion of the East. Early in 1900, Captain de Lotbinniere, an officer of the British Royal Engineers, was sent by his government to inspect and report upon the practicability of mining the gold deposits of the Kolar district in southern India. The ore produced there is of low grade, but the cyanide process has made it valuable, and the mining experts who inspected the Kolar deposits reported that the latter could be made to yield from twenty to thirty million dollars of gold every year, although Captain de Lotbinniere's conclusion, after careful study of the attendant conditions, was that the only method of operation that held out an assurance of profit was machinery driven by compressed air. This method required that power should be found, by which compressed air could be applied to

machinery in the mine. Climatic and other reasons forbade the use of steam-power, but ninety miles away, at Mysore, were the great falls of the Cauvery River, and Captain de Lotbinniere, recalling the works at Niagara Falls, whence an electric current is carried to Buffalo, undertook the problem of generating electric power at the riverside, and transmitting it to the mines.

"The Hadrass government, in which the Kolar district is located, approved the captain's plans, and gave him full authority to put them into execution. Here his real labor began. The various electrical concerns in England, to whom he first applied, declined to undertake the construction of a plant capable of operating compressed-air apparatus in gold mines, ninety miles removed from the source of power. French and Belgian engineers were equally reluctant to essay the task, and those of Germany asked for time in which to make experiments. In the end, the captain was compelled to bring his quest to this country. The engineers of the electrical company before whom he laid his proposition invited the coöperation of a well-known manufacturer of compressed-air machinery, and the result of their joint labors was a speedy and satisfactory solution of the problem of carrying and conserving energy over a distance of nearly a hundred miles. The million dollars' worth of apparatus contracted for by Captain de Lotbinniere before he sailed for home has since been put in place. Only the mines will be supplied at present by the new apparatus, the distinctive feature of which is the employment of overhead wires at a high voltage. But in the not remote future, the strength which the falls is capable of generating, during the rainy season of ten months, being enormous, important manufacturing enterprises, now preparing to locate in the neighborhood, will avail themselves of the practically unlimited power the plant will produce. The excavating machinery with which the mines will be operated also bears an American imprint, and will, together with the electrical plant, be operated by American engineers.

"The harnessing of the Cauvery Falls furnishes fresh proof of the ability of American engineers to meet and master new conditions. The pay for this work is naturally very high. Good authority has it that Henry F. Parshall, the American director of some of the great electrical enterprises now under way in London, has for some years past received annual professional fees amounting to \$150,000, and the success of other of our native engineers has been hardly less marked in a monetary way. To the young man with an aptitude for the work, no calling holds out greater opportunities at the present time than engineering."

MECHANICAL ENGINEERING AS A PROFESSION

By WILLIAM M. WELCH, M.E.

THE mechanical engineer is a product of the nineteenth century. With the application of steam power to machinery his profession came into existence, and it has developed with the growth of the science and art of mechanics. Some of its branches, such, for example, as electrical and mining engineering, have become distinct professions.

Theoretical knowledge and practical ability are the essential qualifications of the mechanical engineer. His understanding of general principles is the attainment which marks the difference between him and the mechanic, and enables him to reach positions of high authority. His fellow-worker in the mechanical field, the machinist, may be, and often is, his equal or superior in natural mechanical ability, but where the machinist earns hundreds of dollars, the mechanical engineer earns thousands; where the mechanic must ordinarily be content with a very subordinate position, the mechanical engineer can hope for the very highest in the mechanical world.

The difference, so great in its consequences, between these two classes of workers is simply that of preliminary education. The mechanical engineer, taught in the schools, absorbs principles and formulas which are the essence of the toil and research of many men extending through many years. The machinist, on the other hand, knows little that he has not acquired in the hard school of personal experience. It is easy to see how vastly more economical of time and energy, and more effective, is the training of the young man with a scientific school diploma.

The monetary value of the training of a good technical school has been estimated to approximate twenty-five thousand dollars; that is, the youth who devotes four years to a technical education, spending six hundred dollars in fees and a hundred or two more for books and apparatus, is believed to have acquired ability to earn at least twenty-five thousand dollars more than if he had not taken this training. This estimate is based upon the average incomes of mechanics and mechanical engineers,



and does not take into account the greatly widened field of opportunity which this education offers to the latter.

The youth who possesses the mechanical and mathematical bent of mind, good judgment, and strong common sense essential to success in mechanical engineering, and, in addition, is able to take a course at some technical school of recognized standing, may be regarded as fortunate. He is entering a profession in which the demand for good men is considerably in advance of the supply. The use of machinery is being continually extended. In this country we are still in the infancy of mechanical development, and in numerous other great territories, such as China and the East generally, and our own new colonial possessions, the beginning has as yet hardly been made. China, for example, within the next few years will give highly compensated employment to an army of mechanical engineers. Many will also be very active in South America, Cuba, and the Philippines. But the young man need not leave the United States to find ample opportunities to prove his ability as an engineer. Every large manufacturing establishment employs several. With the forming of new enterprises, or the extending of old ones, comes more work for members of this profession.

Andrew Carnegie, writing to Henry Morton, President of the Stevens Institute of Technology, says: "We like to train our young men in accordance with our individual needs, but we almost always require them to have as a groundwork a technical education." This is the present-day attitude toward the mechanical engineer, and is entirely different from that of twenty-five years ago. Then the so-called practical man, who had begun as a boy in the shop and had reached a position of authority through his mechanical skill and executive ability, was very much inclined to scoff and sneer at the theoretical education of the young man from school, and the latter often found that it was advisable to conceal the fact that he possessed a diploma or degree, accepting a minor position with the hope that his special training would enable him to forge ahead, without the fact being known that he was a graduate of a technical school.

At the present time the young man is greatly aided in obtaining a position, by the fact of his graduation from a scientific school. It is always a decided advantage to him moreover, if his alma mater is an institution of recognized standing, because a good many of the high executive positions in the mechanical field are held by graduates of the leading schools, and among these gentlemen, there is a strong tendency to favor, in the matter of employment and promotion, young men from the schools from which they themselves graduated.

The mechanical engineer earns a living income much sooner than does the young lawyer, doctor, or member of almost any other profession. This makes the calling a particularly good one for the sons of the great

army of middle class families, whose means are sufficient to see their boys through the four years at a technical school, but are not enough to maintain them during the subsequent period, which, in the case of the young lawyer or doctor, is usually very barren of monetary returns. A young man from a technical school is usually earning enough within a year after his graduation to support himself comfortably. President Morton says that in the third or fourth year after leaving the school, the old boys generally send him wedding cards.

The technical course embraces a thorough training in mechanics, mathematics, physics, chemistry, electricity, metallurgy, mechanical drawing, and other branches which embrace theory and practice in the field of engineering. Parallel with the theoretical study, is a course of practical work in the shop. The scientific study is supplemented by a course in English sufficient to give the student a familiarity with the best literature, and to give him facility in the use of his mother tongue. French and German are taught with a view of giving the mechanical engineer direct access to the scientific literature of two peoples who are very active in scientific and mechanical pursuits.

Professor R. H. Thurston has made to the students of Lowell University some general remarks which are worth quoting. The professor says that mechanical training gives the student very effective tools, and also teaches him how to use them. The special value of this training will be tested not so much during the engineer's early years as after he reaches places of high responsibility, and is confronted with exceptional problems, difficult of solution to the best of engineers. Such problems are frequently occurring in thermodynamics and its application in the construction of engines, and in other branches of mechanical engineering. The ability to quickly and successfully solve them is a very important factor in the equipment which enables a man to attain high success in the profession.

"Seize every opportunity," says Professor Thurston, "to pick up scraps of information. Theoretical knowledge must be covered and supplemented by a wide and minute knowledge of practical details. Learn all you can from the rough-and-ready, able, but untaught, mechanic, never refusing to him in return liberal rewards from your own store of knowledge. Do not be obtrusive with your own attainments, and make every experience further your practical equipment. This alertness in gleaning practical information from practical sources is very essential to success. Many workmen can give the mechanical engineer practical ideas and make him familiar with methods and details of which he knows little or nothing. This practice, of gathering information from a great number and variety of trees of knowledge, is followed by those who obtain the greatest prizes in our profession. The man who achieves suc-

cess is the man who takes advantage of more or less obscure opportunities, overlooked by the careless and the obtuse.

"One should always be ready for the vicissitudes of fortune; be prepared to lose your position, by reason of failure of your employers or some other cause. The best way of holding a place is, of course, to do your work so well that your services cannot be dispensed with. Always be prepared to assist friends and deserving acquaintances. They may at some future time be able to do you a good turn in case of an emergency. No man, no matter how able, can be independent of others. The strongest man standing alone without friends can accomplish little. Endeavor to become thoroughly acquainted with the principles and practices of the trades which are auxiliary to mechanical engineering; be able to tell the pattern-maker how to make your model, the molder how to mold it; the founder what metals should be combined in the casting; the blacksmith where to use the best iron and where the cheapest, and how to weld, preserving the fiber of the iron uninjured. You should be able to instruct unskilled boiler-makers in the matter of selecting, testing, and spacing rivets, in welding seams, and turning the flanges. Do not be content until you can take the various pieces, as they come from their makers, and combine them into a perfect machine.

"To acquire this all-round mechanical ability takes time, perseverance, keen observation, and good memory. In addition, there must be that mechanical knack of doing things which is both natural and acquired, and which no engineer in successful practice is without. Try to earn self-approval; let no task be pronounced completed until it has been done to the best of your ability. Make the most of your resources. Even rude devices, cheap materials, rough workmanship, and absence of finish often indicate that the engineer has been able to accomplish much under adverse circumstances. Be guided but never ruled by precedents. Lowe says: 'A man who habitually prefers old practices to new, follows a principle which would stereotype every abuse.' This is even more true in engineering than in ethics, since the former is essentially a progressive art. Be, therefore, radical in theory and conservative in practice. Help the inventor, and try to become one yourself. Do not give up your studies."

THE MINING ENGINEER

By WM. S. JONES

Mining Expert

A COMPLETE revolution has been wrought in mining methods during the last few years, and at the present time the young man who would succeed in this calling must be a thoroughly trained mining engineer. If he has a technical education and a natural aptitude for the work, no occupation holds out larger promise of profit and steady

advancement. The pay is large and the field practically unlimited. A striking instance of the handsome rewards awaiting those equal to their opportunities is furnished in the career of John Hays Hammond, who, it is reported on competent authority, received \$60,000 a year for his services. The statement is frequently made by men interested in mines and mining that there are not enough competent mine managers to supply the demand.

It would not be too much to say that a managership awaits every graduate of a mining school, who proves by active and intelligent labor in the fields and underground that he understands mining practice as well as theory. The graduate, when he first goes to a mine, is likely to be regarded as something of a hothouse growth; he must bring his intellect to bear upon the practical problems of the day's task, to equip himself for the position. His technical knowledge of formations must enable him to make explorations underground as well as on the surface. If he is to be in control, he must be able to do a given piece of work as well or better than the best of his workmen. This implies strength as well as skill. He must also be equal to the task of managing men.

When these qualities are combined, their possessor has not far to seek for an opportunity to exercise his abilities in a remunerative field. There are few professions that offer such promise of high reward as does that of the mining engineer. One reason why high salaries are paid to mine managers is that, their work being so far away from headquarters, it is necessary that the proprietors shall secure men upon whom they can absolutely rely, not only in the matter of fidelity to their interests, but also for ability to conduct the enterprise without supervision. Not all successful mining engineers are graduates of the schools. A considerable number of those who are in the lead are practically self-taught. Senator John P. Jones of Nevada belongs to this class. In the early days of the gold excitement, he went overland with a wagon train to California. There he worked as a miner, in placers and tunnels. The first hundred dollars he ever possessed was dug from the earth with his own hands. He diligently studied mining, reading and rereading many books upon the subject. He prospected from place to place until 1867, when, quartz or lode mining having largely superseded placers, a prominent mine owner in the Comstock asked him to take charge as superintendent of the Crown Point and Kentuck mines. The future senator soon secured a proprietary interest in the Crown Point, and from its development acquired a fortune of millions. He lost his fortune by investments in various mining enterprises in California and Nevada, and for several years was a poor man. Then he was suddenly restored to wealth by the great productions of the Treadwell mine in Alaska, which he had located and developed. Senator Jones ascribes the success, which has

attended his efforts, to an early determination to make himself master of every branch of his calling, and it is his belief that any young man of the present time, who takes up mining with a like determination, is sure in the end to acquire a competence, if not a fortune.

The late Marcus Daly was another admirable example of the self-taught mining engineer. He was born in Ireland, and in the early 'fifties drifted to the Pacific coast. He had no sooner set his foot in California than he bought a miner's kit, and struck out for the mines. He did not know a gold vein from a ledge of sandstone, but he had a pair of strong arms, and he knew how to use a pick and shovel.

In the course of a few years, he gained the reputation of being one of the best judges of mining properties in California and Utah. He also made valuable acquaintances, among them the Walker Brothers, of Salt Lake City. It was in their behalf that he undertook the exploration of the Alice mine, in Montana. Going to Butte as a working miner, he went to a cheap hotel, stayed a week, and then told the landlord he could not pay his bill unless he got a job. The landlord secured work for him in two or three mines, one of which he found too damp for his health, and another unsafe. The landlord, in desperation, finally induced the owners of the Alice to give Daly a chance to earn money enough to settle the account. Daly studied the property for three weeks, while he worked, then left town, and, six weeks later, returned as superintendent of the mine, which was soon turning out bullion to the amount of nearly one million dollars a year. All this time he had been working for others, but he was now in a position to do something in a modest way for himself. Among other investments, he was able to buy the Anaconda silver mine, for thirty thousand dollars. After working it for silver to a depth of 120 feet, he struck the richest copper deposit in the world, and his fortune was made. Besides the Anaconda, he soon owned the St. Lawrence and adjoining mines. Work was pushed forward on both the Anaconda and Lawrence, and as copper was then beginning to find a livelier market than ever before, he constructed works for the treatment of ores, of a magnitude that had not been before seen on the American continent. A city was laid out at the same time and named Anaconda. Daly had in his employ in mines and reduction works, over which he held control at the time of his death, about six thousand men.

Pluck, crowned by good judgment, has been the corner-stone of most of the great mining fortunes, including that of the man from whom the Colorado town of Creede takes its name. Nicholas C. Creede was born on an Indiana farm, put in seven years as a scout and Indian fighter, and helped with his hands to open the overland route to the Rockies.

"I was in the Black Hills," said he, "before gold was discovered, and, when I heard of that excitement, it set me to thinking about my lost

opportunities. I began to talk to everybody I met whom I thought had any knowledge of minerals, and by this means picked up sufficient knowledge to tell silver or gold 'float' when I saw it. Then I became a prospector. I usually took a man along, though sometimes I could get no one to accompany me, and went for months without seeing a human being. In May, 1899, I struck some float on the side of Mammoth Mountain. I tied my burros and began to follow it. I climbed the mountain all day along the trail of the float. The sun was beating down on me, and the glint of the float under my feet was blinding. Just when the Western sky was tinged with that gorgeous red we sometimes see in the Rockies, I lifted my head and saw projecting in the front a boulder of silicate as big as a house. That was where the float I had followed all day came from. I almost shouted with delight. I knew it was bound to come some day, but the idea of finding it in such shape was appalling to me. However, to make a long story short, I staked it off and it was mine. I named it the Mammoth. I knew there must be more of it close around, and I kept at work for a month, until in June, I found the Ethel." Six months after he located the Mammoth and Ethel mines there were five thousand people in Creede.

A somewhat similar story lies behind the career of Thos. F. Walsh, owner of one of the richest mines ever found in Colorado. Walsh was born in Ireland fifty years ago, and came to America in the early 'seventies, settling in Colorado. He was a millwright by trade, but soon took to prospecting, and made a small fortune during the Black Hills excitement. Then he moved to Leadville, and, while conducting a hotel, devoted most of his time to mining. Like Marcus Daly, he gave the study of ores and minerals careful attention, and became thoroughly versed in the nature of mineralized rock. He made money in Leadville, as he had in the Black Hills, and later extended his operations to most of the mining counties in Colorado, besides operating mines in Montana. Up to 1890, Mr. Walsh always had partners in his ventures, but, from the first, he hoped to find a mining property that he could own alone. Five years ago, he was examining the country west of Ouray, Colorado. The section was a difficult and uninviting one for the prospector, slide-rock and moraine making it almost impossible to get a glimpse of the original formation. There was, however, one place on the mountainside where some previous work had been done, reaching in to where the vein ought to be, but unfortunately an immense bank of snow guarded the entrance and covered the workings at this point. He continued his investigations for several weeks, and one day found a small piece of ore. He assayed it and it ran very high in gold. Then he waited for the snow-bank to melt. The time came at last when the tunnel he was waiting for could be located, and, with a little shoveling, exposed. Next day, he

arose from a sick-bed, and, though scarcely able to walk, made his way to the tunnel and began an examination of the vein. He found one side of it lined with sparkling zinc and copper ore, beautiful to the eye but of little value. On the inner side, however, he noticed a white rock, dotted with little specks of a black mineral which his trained eye told him at once was silvenite, a composition containing two-thirds gold and one-third silver. Careful assays quickly justified his first judgment. The claim, which was on abandoned ground, was located, patented, and named Camp Bird. After that, Mr. Walsh set to work to secure by location and purchase an absolute and individual ownership of this vein for six miles in length. So successful were his efforts, that he now has what promises to be by far the largest and most extensive gold and silver mining property owned by any one individual in the world. The cost of acquiring and equipping this property up to the present time has been enormous. Fortunately, the output has been even greater, and it is predicted that in the course of a few years it will run into a plurality of millions a year. The lesson to be drawn from Mr. Walsh's career, by young men who have any idea of embarking in mining business, is to study the nature of rocks in a most thorough and practical way, and not to despise those which are humble in appearance.

Edward Schiefflin, discoverer of the silver ledges at Tombstone, Arizona, was pronounced by General Miles to be the truest type of the untiring and persevering prospector the Southwest has ever had. He was born in Pennsylvania, and when a lad was taken to Oregon by his parents. His father tried to teach him farming, but the boy ran away and went prospecting for copper ore in southern Oregon. He endured hardship and solitude, sometimes with a companion and sometimes with only a jackass for company. He dressed as an Indian. For years he prospected. No matter how footsore, hungry, lonesome, and weary, he was never known to waver in his love for his chosen vocation. The year 1877 found him delving in the hills near the present town of Tombstone. Early in the following year he found a peculiar specimen of rock which he was convinced was rich in silver. He returned to Camp Hauchuca. There he told a brother of his discovery, and the rock was submitted to a miner named Richard Gird, who suggested that it might pay to work the ground from which it was taken. To this Schiefflin consented, on condition that Gird accompany them and pay the expenses of the outfit. It was thus arranged.

Ore was found that assayed over two thousand dollars to the ton, and 160 acres of mineral land were located. When they had taken out \$10,000 in silver bullion, they invested the entire sum in improved machinery for the reduction of silver ore. This machinery enabled them to take out every week from four to six thousand dollars' worth of silver.

At the end of three years, Gird disposed of his interest in the claims for eight hundred thousand dollars, and the Schiefflins for five hundred thousand dollars each, but an equal division was made, Gird refusing to take more than an equal third. In five years the Tombstone district produced twenty-five million dollars worth of silver.

It must be admitted, however, that a great many more failures than successes are to be recorded in the life of the mining prospector. The work of the mining engineer is not subjected to the same vicissitudes as that of his employers, for he is only occasionally a party to disappointments and losses.

In the great and growing field of coal mining, the engineer is confronted by conditions essentially different from those of the searcher after precious metals. Here he is on comparatively safe ground, with just as important problems to solve, but with far more conservative materials to deal with and under better organized industrial conditions. Supply and demand govern the business. Economy of production is the one great end and aim of his efforts. The factors entering into the engineer's calculations are fixed. The coal is there. It is to be got out more promptly and at less cost than before, and if the expert can do this, he has succeeded. If he can overcome the natural enemies of the coal miner — flood, fire, and noxious gases — by simple contrivances in the nature of preventives, he has scored other triumphs not inferior to those of the cautious lawyer who saves his client's money by preventing litigation. If he can cut cross-tunnels safely in places where his predecessors feared to go; if he can purify the air by cheap ventilating appliances; if he lets no pound of steam pressure go to waste, but utilizes it all in improving the service; in short, if he works for a company dividend rather than for his salary, his reward will be substantial.

With ingenuity, a clever student of mining engineering can accomplish more than can his fellow-engineer with capital. Originality is everywhere at a premium, but in a coal mine an idea is sometimes worth a fortune. The soft coal fields of the South are waiting for exploration, for young men who have the sharpness to get their stores out, and into the consumer's hands, at a profit. Some of these fields are enormous. West Virginia has more coal lands, for instance, than Great Britain. Even Kentucky can claim the same distinction, while Alabama and Arkansas have each eighty per cent. of the English area of 11,900 square miles. Most of these vast deposits lie within a few dozen miles of great bodies of iron ore and an abundance of sulphur. There is enough iron and coal in America to supply the wants of the world for the next ten thousand years.

It may very easily be true, therefore, as claimed by the heads of technical schools and colleges (such as Cornell and Stevens), that the demand

for civil engineers in the mining and collateral industries is far ahead of the supply. Every class graduated at these leading institutions in late years has been absorbed by employers, its members being readily given desirable and remunerative positions. American corporations are not only using them here, but are sending them out to our "dominions beyond the seas."

THE STATIONARY ENGINEER

FROM the time when James Watt listened to the music of the steam from his mother's teakettle, the vocation of the stationary engineer has had a peculiar fascination for the lover of mechanics. When this attraction manifests itself in a boy, there can be little doubt of the mechanical bent which it implies.

The stationary engineer has been an honored figure in the world's work for a hundred years and more. His work has made it possible for industry to accomplish wonders; for architecture to rear magnificent edifices along with the development of the elevator; for electricity to gridiron a vast area of the United States and thus increase the comfort and convenience of the people.

The calling is one which gives its best prizes to proficiency, and stamps the work of all as useful, and, therefore, honorable and helpful to mankind. Beginning with the humble wages of an oiler, cleaner, or fireman in an engine room, a young man of natural aptitude need encounter no insurmountable obstacles, if he be determined to reach the high plane of consulting engineer. His wages may be as low as three dollars a week, yet he has opportunity to study the mechanism of the operating machinery, and to get that practical knowledge which is just as essential to him as the theoretical study which he may pursue in special schools.

Organization has done much to promote the interests of stationary engineers. In the United States, fifteen thousand of them are now enrolled as members of the National Association of Stationary Engineers, with hundreds of local associations throughout the country. This body has struck the keynote of its purpose in the single sentence: "To earn more, learn more." The educational committee, whose members are recruited from the ranks of the active engineers, conducts a regular course of instruction through the columns of the Association paper, propounding questions to be answered, and printing interesting discussions arising from the difficult problems in engineering. The advantage of this attitude on the part of the leaders is apparent in the better

technical training of the engineers belonging to the association. They have been commanding better wages, within the past five years, than ever before.

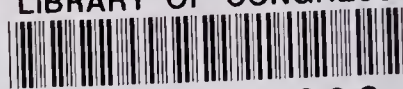
Another factor which has entered into the work of the stationary engineer is the dynamo, or the electric generator, which is directly connected with the steam engine. It was Thomas A. Edison who, in 1883, first united these two powerful forces in a single harness. As a result, the stationary engineer of to-day is not considered competent if he fails to understand something of the principles and mechanism of electricity, as well as those of steam.

The broadening of his horizon has been a good thing for him. He easily and rapidly graduates, if he be ambitious and intelligent, from the hard toil of the engine room to the dignity of the position of chief engineer. There are stationary engineers receiving salaries of three thousand, four thousand, and even five thousand dollars a year, who owe their success solely to their ability to take advantage of opportunities for self-improvement. The constructing or consulting engineer is sometimes evolved from the engine room, and he is the better for that training when he comes to lay out a power plant for a railway, or a heating and lighting plant for a large institution or public building.





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